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ORIGINAL LECTURES.

REMOVAL OF AN INTRA-LIGAMENTARY CYST.

A Clinical Lecture,
delivered at the Hospital of the University of Pennsylvania.

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GENTLEMEN: The woman I bring before you this morning is thirty-seven years old. She has been married thirteen years, but has been sterile, and she has a tumor which developed eighteen months ago. Examination shows what seems to be a multiple fibroma of the uterus, together with another abdominal tumor, the nature of which I have not yet determined. The fact that she has uterine fibroids suggests that the growth is fibro-cystic; but, as this is rare, and as the tumors are separated from each other, I am more inclined to think that it is an ovarian growth. If it is fibro-cystic, it is more serious. The strongest reason against its being a fibro-cystic tumor is that there is no increase in the amount of the monthly bleeding. Whatever it is, I propose to cut into the abdominal cavity, in order to see what can be done in the way of removal. The amount of fat in the abdominal walls is small, and this circumstance renders the operation easy.

Just here, whilst the patient is being etherized, allow me to say a few words about the preparation of a patient for an abdominal section.

In the first place, all the emunctories of the body should be active. If the patient has travelled a long distance, rest in bed and tonics are indicated; if the patient is strong, moderate exercise will do no harm. In all these cases a good, substantial, easily-digested diet is required. On the day previous to the operation I order a full dose of castor oil, compound liquorice powder, or Epsom salt, given early in the morning. During the afternoon of the same day, after the patient has had a soap-and-water bath, the abdomen is thoroughly scrubbed, clean clothes are put on, and she goes to bed. In the evening, should there be sleeplessness, some hypnotic should be given, but not opium, as this drug checks both secretion and excretion and tends to nauseate. The morning of the operation the patient is given an enema of soap and water, followed by another bath, and a vaginal douche of bichloride of mercury, 1 to 2000. A carbolized towel is then placed over the abdomen, covered with waxed paper, and retained by a binder.

Our patient now being ready, we will begin the operation. I make the incision in the median line, cutting through skin and fat, with the intention of reaching the linea alba beneath—not always an easy matter, especially when the walls of the belly are not distended. An excellent way to find the linea alba is to pass a grooved director across each rectus muscle, as you see me do here, to the right, and then to the left, and the point of arrest indicates the line. Carefully dissecting through this line, I come to the peritoneum, which lies behind the recti muscles, separated by a cellulo-adipose tissue.

Before opening the peritoneum, hæmorrhage is checked with catch-forceps. I now pick up, with a pair of forceps, the peritoneum, and gently cut through it, taking care not to wound any stray loop of intestine. By inserting two fingers in the opening made, I am enabled, by means of a pair of blunt-pointed scissors, to enlarge the wound to the required extent. I am now in the abdominal cavity and have exposed the wall of the tumor. It is not an ovarian cyst, because it is not nacreous-hued, and besides, it has too great a number of muscular fibres in its walls. It may, however, be an intraligamentary cyst. There is also present some ascitic fluid which must be removed. I think I shall find this to be a tumor covered with the broad ligament.

There are many adhesions, and as I am afraid to break them at once, I shall make the abdominal incision larger so that I may the more readily get at them. These adhesions are upon the transverse colon. None are free, and therefore I must work with extreme care, lest I wound the intestine. There are also other numerous and strong adhesions below, which I try to wipe away with a sponge, but without success.

Now, after working for some time, and with very careful dissection, I have succeeded in enucleating the tumor from the broad ligament. It is an intraligamentary cyst—a variety of tumor that is most difficult to remove. The vessels are now clamped so far as is thought necessary. Other large and most formidable adhesions, extending to—I cannot tell where—make it necessary for me to wash out the cavity of the peritoneum after the operation, because of the escape of clotted blood into the cavity. The tumor is really fastened down by adhesions to the bones of the pelvis behind. As you notice, the patient is greatly emaciated and she has been growing more and more so each day; therefore, without the operation she would have lived but a short time. I do not know yet, as I now take out this tumor, whether it is a uterine or an ovarian tumor. If by any means I open the aorta or vena cava, the patient is done for. Yet I have to run that risk, as I am compelled to work blindly. I am getting along, but it is slow and dangerous work and my heart is in my mouth. I believe now that this is primarily a fibro-cystic tumor, growing from the womb; but the adhesions arising from the posterior bones of the pelvis make its removal especially difficult. It is impossible to break up these adhesions without using force that in this instance would be attended with the greatest danger. At length I have the pedicle separated so that it can be tied. I am very much afraid that this growth is malignant, and, that therefore, the prognosis

is not very good—although I have seen patients quite similar to this, recover without a bad symptom, after just such an operation.

The nerve-strain on me in this operation has been fearful. The fear was that I should wound the intestine or a large bloodvessel. I have lost but one patient on the table, though another died fifteen minutes after the operation.

The particulars of the former case were as follows: I had to go to a town a short distance from Philadelphia, and while there was asked to see a school-mistress who was suffering with vomiting and constipation. She had also two abdominal tumors, and investigation showed that there was a stricture of the rectum. I left directions for the stricture to be dilated, and when I returned, the patient having in the meantime been placed upon tonics and nutrient food, I operated. Unfortunately the etherizer became too much engrossed in my part of the work, as this was the first operation of the kind that he had seen. Both tumors were removed; but the patient died on the table from sheer exhaustion; and, as no one of the other physicians was willing to tell the family of this, it became my sad duty to do so. One of the assisting physicians had diabetes mellitus; the shock to his nervous system was so great that he never fully recovered from it. Every precaution was taken, but without avail. Finally, he tried a change of climate, but this too was a failure, and he died a few months later. This was the sequel to the case. But to return to the accident. The news of it spread through the town like wildfire and everybody wanted to have the minutiæ of it explained to them. I was exceedingly anxious to get home as soon as possible, but found to my horror that there was no regular train until the next day. Fortunately there was an express that passed there in the afternoon, and by telegraphing to headquarters, I got permission to stop this train. I was exceedingly thankful to get away, but, to my discomfiture, when I got on the cars I found that two of the townsmen got on with me, that they knew of the circumstance, and that I had to entertain them with a rehearsal of the details on the way to Philadelphia.

Now to return to the present tumor. There is either a piece left on the sigmoid flexure of the colon, or there is upon that viscus an independent tumor which it is impossible to remove, as it completely encircles the intestine. There is some deep-seated bleeding; and though, as a rule, I would rather tie the vessels than use Paquelin's cautery, I have to use the cautery here. I do not hesitate to touch the bleeding points on the intestines and on the back of the womb. I remove the left ovary and tube also, and the fact of their being separate from the other tumor proves the growth to be fibro-cystic. I now carefully smell the abdominal cavity to learn whether there is any fæcal odor. There is none. If fæcal odor were present, of course it would indicate that there had been an intestinal wound with extravasation. This would necessitate the discovery and closure of the opening. There is still some bleeding going on within the abdominal cavity, and I will attempt to control it by what I am pleased to call the "toilet of the peritoneum," for which purpose I use a clean Davidson's syringe and hot carbolized water. When the water returns perfectly clear I know that the peritoneal cavity is free from blood and clean. Thoroughly draining the abdomen of all fluid, I close the incision; but before doing this I place a clean sponge in Douglas's pouch, another in the sulcus between the bladder and the womb, and a third (large, broad and flat) over the intestines under the wound to catch the blood that may ooze from the cut surfaces.

The sutures have a needle upon each end—which allows them to be passed from within outward. Each needle is inserted about a quarter of an inch away from the edge of the wound, and it is well to include in the sutures all the layers of the parietes—cutaneous, muscular, aponeurotic, and peritoneal. I would lay especial stress on including the muscular layer, although many ovariotomists think that by so doing abscesses in the recti muscles are apt to follow in the suture-tracks. But it seems to me that it is better to run the risk of a stitch-abscess than the more serious and grave one of ventral hernia.

Having inserted all the sutures, I remove the sponges from the abdomen, and am rejoiced to find that there is scarcely any blood on them. This tells me that there is but little bleeding from the sutures or from the abdominal cavity itself. I now count my instruments and sponges, and find the number correct, and then close the incision without having to use a drainage-tube.

My method for closing the wound is by grasping in one hand all the sutures on my side, while my assistant does the same upon the opposite side; thus the edges of the wound are brought firmly together, and at the same time all air is expelled from the abdominal cavity. Each suture is then tied with the surgeon's knot. The entire wound being closed, the ends of the sutures are gathered together and cut off several inches from the knots. The wound is dressed with the usual antiseptic precautions: First, it is thoroughly cleansed and dried; next iodoform is freely sprinkled over the surface of the abdomen, and particularly into the umbilicus; then several layers of carbolized gauze are placed over the wound, and over the gauze adhesive strips of rubber plaster are fastened; last of all comes a wad of cotton-wool which has been thoroughly baked in order to destroy all germs. This is held in place by a flannel binder.

I shall now give the patient a suppository of opium, not only to soothe the pain, but especially as a nerve stimulant; because her peritoneal cavity was open for more than an hour and there were numerous adhesions, perhaps later she may require another suppository.

The after-treatment will consist in keeping the patient on her back, and without food for twenty-four hours. Hot cans will be applied to the body, care being taken that they do not come in too close contact with the skin, as the burns which they make are unusually severe. She will be allowed to see no one but the physicians and the nurse for several days, as absolute quietness must be observed.

Should obstinate vomiting occur, ice will be given or sinapisms applied to the epigastrium. If there is much flatulence, it will be relieved by inserting a flexible catheter high up into the rectum, or by enemata of turpentine, soap and water.

As a rule, it is necessary to catheterize for a day or so after the operation, but it should be avoided if possible,

as the too frequent use of the instrument is likely to cause an irritable bladder that is slow to respond to treatment.

On the second day we will give half an ounce of milk every two hours, gradually increasing the quantity as her condition demands it.

If her temperature should reach 101° or over, ice will be applied to the head, the body sponged, a saline cathartic given, or some antipyretic administered.

On the fourth or the fifth day the bowels will be freely opened with castor oil, or compound licorice powder. If these fail to act, they will be supplemented by an enema.

In from seven to nine days the dressing will be ready to be removed and the stitches will be taken out.

ORIGINAL ARTICLES.

PROGNOSIS IN PULMONARY TUBERCULOSIS,

Based upon an Analysis of Five Hundred and Fifteen Cases.[1]

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IF I should state that of 515 cases of pulmonary tuberculosis 59 recovered and 65 showed material and lasting improvement, and that the percentage of recoveries was eleven and a fraction, such statement would aid but little in the prognosis of a given case, and also would be unreliable as to the necessary mortality of cases, unless all of them came under treatment and observation at the same stage of the disease and remained under the same conditions until the outcome was determined. Should I endeavor to base a prognosis upon the first 181 cases of my series, in which there were but 3 recoveries, I might well doubt my diagnoses, and take it for granted that in these 3 cases my senses deceived me, and that the disease was always fatal.

Statistics based upon the diagnosis of tuberculosis previously to 1883, or upon cases in which bacilli were not invariably demonstrated, would, in all probability, include some cases of non-bacillary disease. My deductions are based upon cases in which the microscopical diagnosis was clear, which have been under my own observation, and of which I have not only the histories and records while under my care, but have also been able to ascertain the course of the disease up to the date of my inquiry, by direct and indirect communications with patients and their friends, or their physicians. I take this opportunity to express my thanks to the physicians to whom I frequently appealed for careful replies, without which the number of cases available for classification would be much smaller. I hope that the vast amount of labor involved in correspondence and detailed inquiries may be justified by a more ready appreciation of the various points which bear upon prognosis directly or indirectly, and perhaps by the adoption of means, or avoidance of influences, which appear to affect the course of the disease.

It may be well to explain here my meaning when speaking of *improved* or *recovered* cases. Under the former I include all patients in whom general and local improvement lasted for a number of months, the temperature, as a rule, not exceeding 100° F.; who gained in flesh and strength and were able to resume their vocations; in whom cough and expectoration were materially diminished, but still present at the time of their discharge, and who, as far as ascertainable, still show tubercle bacilli in the sputum. (In some of these cases sputum examinations have not been made for several years; some sent me specimens by mail; others had examinations made at home.)

As *recovered* cases, I report those in which all local and general symptoms have disappeared, no active symptoms having been present for six months or more; cough and expectoration having nearly or quite ceased, with continued absence of bacilli in the sputum, if slight expectoration still exist. A number of the improved cases could have been included among the recovered were it not for the bacilli which still appear in the slight expectoration.

The following table shows the influence of age and the general mortality of my cases. Among the fatal cases I have also included patients who are still alive, but who are growing worse, and in whom the termination will probably be fatal:

Age.	Total number of cases.	Number that have died or are growing worse.	Per cent.	Improved and are still doing well.	Per cent.	Recovered.	Per cent.
5 to 15	5	5	100	0		0	
15 " 20	24	22	91.6	1	4.2	1	4.2
20 " 30	186	153	82.2	16	8.6	17	10.5
30 " 40	216	152	70.4	39	18.0	25	12.0[1]
40 " 50	67	46	68.6	7	10.4	14	20.8
50 " 60	16	12	75.0	2	12.5	2	12.5[1]
60 " 70	1	1	100	0		0	
Total,	515	391	76	65	12.5	59	11.5

The influence of age.—Of the 391 cases who died or have become hopelessly advanced in the disease, there are 223, or 57 per cent., who, at one time, while under my care, showed somewhat encouraging improvement; 67 of these to such an extent that permanent arrest seemed probable. In these 67 cases (38 per cent.) the relapses were, with few exceptions, due to preventable causes—as a rule, to

[1] Read before the Buncombe County Medical Society, Asheville, N. C., July 7, 1890.

[1] One of the recovered cases that died of other disease.

the too early abandonment of climatic and general treatment, obstinately continued over-exertion, or to imprudent exposures. In 8 cases the relapse was clearly referable to epidemic influenza. The latter disease also caused serious relapses in several cases in which the disease was nearly arrested. Four cases that I had considered as cured I have excluded from my report of recovered cases, as I am unable to determine the exact nature of the lung disease which accompanied the influenza, and which continued until death, the patient not being under my care at the time, and microscopical examinations of the sputum not having been made by the attending physicians.

The apparent influence of age upon prognosis is shown by the table to be favorable in proportion to the number of years up to fifty, after which the effects of advancing age seem to influence the prognosis somewhat adversely. The number below twenty years and above fifty is, however, so small that no conclusions are really justifiable.

The influence of sex.—Of the 515 cases, 290 were males, of whom 212, or 73.2 per cent., died or have grown worse; 38, or 13 per cent., improved; and 40, or 13.8 per cent., recovered. Of females, there were 225, of whom 179, or 79.6 per cent., died or have grown worse; 27, or 12 per cent., improved; and 19, or 8.5 per cent., recovered. If, however, of female patients we include only those between the ages of fifteen and forty years, we find that the dead and hopeless cases amount to 85.3 per cent., with improvement in 9 per cent., and recovery in 6 per cent. Furthermore, I find that the climacteric period furnished a proportionally larger number of female patients, as compared with men of the same age. Of the 67 patients, between the ages of forty and fifty years, the number of females was 41, or 61 per cent., whereas male patients predominate during every other period, except that between ten and twenty years, where females again are in the proportion of 18 to 12, or 68 per cent. This may be coincidence, especially with some cases that were treated at my institution, or at a distance from their home, yet it seems reasonable that the two great epochs, puberty and the climacteric, especially if complications incident to these periods exist, may lead to nutritive disturbances, such as chlorosis and anæmia, and thereby predispose the individual more strongly to infection.

Whereas all the female patients between the ages of ten and twenty years, died or became hopeless cases, the 41 cases, between forty and fifty years, furnish the largest percentage of recoveries, being 10 recoveries, or 25 per cent., against 4 recoveries, or 15.4 per cent., in males of the same age. In 33 of these 41 female patients, menstruation had permanently ceased when they came under my care.

I have frequently noticed that female patients are apt to lose ground during the menstrual week, and this often in the absence of any special disturbance of their menstrual function. Fever if absent is apt to return, and if fever has been present it is several degrees higher, for a day or two, immediately preceding the menstrual flow. If the period is entirely missed or is delayed the increased temperature has often been observed to continue throughout the time corresponding to the menstrual week. In addition, increased cough, diminished appetite, and digestive disturbances, are frequent, and a loss of several pounds in weight has been noticed in a number of such cases who had been gaining. When such disturbances are repeated monthly they interfere, sometimes quite seriously, with the favorable progress of a case, and must to some extent influence the prognosis.

The occurrence of pregnancy, during any stage of pulmonary tuberculosis, renders the prognosis serious, even in an otherwise favorable case. Of my 225 cases, 13 became pregnant during the earlier stage of the disease; all went to term and were delivered of apparently healthy children; in all active symptoms returned or increased within nine weeks after delivery; in 4 marked temporary improvement again occurred, 12 died, and 1, otherwise a very favorable case, recovered.

It would, therefore, appear that in the female the prognosis is less favorable if her menstrual function be accompanied by the disturbances that are mentioned above, and more favorable if the climacteric period has been passed.

The influence of heredity.—There are few practising physicians who will be convinced by the laboratory student that hereditary influences have nothing to do with the etiology of tuberculosis and that the acquirement of the disease is accidental. I not only feel absolutely convinced that heredity is an indirect factor in the acquirement of tubercular disease, but it appears also from my records that *the prognosis in such cases is much less favorable.*

No one to-day maintains that heredity means the transmission of the morbific agent which causes the disease. Those who believe that heredity is a factor claim, on clinical grounds, that the subjects of such heredity furnish a larger proportion of cases of pulmonary tuberculosis than those with no inherited tendency, and that had heredity no influence in causing the disease, the number of cases should be the same in those who have and those who have not a consumptive family history.

Among 100 interrogations from patients with phthisis (casually made as I had opportunity and in a locality where phthisis is prevalent) I received 88 negative answers, as to the disease having been present in their respective families. Granting, how-

ever, that such a history could be shown in 18 per cent. of the entire population, why is it that more than twice this percentage of tubercular patients show such a history? It is generally accepted that parents transmit physical and often mental peculiarities to their children, why not believe that diseased, weakly and constitutionally depraved individuals should produce weak offspring? We require no predisposition of tissues, only a generally depressed and weak constitution, which causes the organism to be deficient in its nutritive processes, in its force-producing, injury-resisting, and repairing powers, as compared with individuals who have no such heritage.

Observing physicians believe that such people have little power to resist, and readily become victims to tubercular infection. This would be still more probable if such persons also inherited, or acquired by faulty development, a phthisical thorax, a small heart, a tendency to glandular enlargement, etc., all of which would lead to nutritive disturbances in general and of the lungs in particular. The non-resistance of such persons is only relative. In the cases of acute miliary tuberculosis, or acute phthisis, in which, at least after infection has taken place, non-resistance to the progress of the disease is apparent. In other people the resisting power may be more or less, according to their individuality; all being influenced for the time being by the various conditions of general health, and the intactness of the part in which the infecting germs lodge. I do not believe that any human being possesses an absolute immunity from infection and I have no doubt that if enough of the tubercle bacilli find entrance into the organism, no matter by what avenue, infection will result. The behavior of the infected organism toward the progress of the disease, and in repairing the damage done, may, however, be very different in the constitutionally strong than in those who are predisposed in the sense that I have explained. Speaking for myself as a strong believer in hereditary predisposition, and in a larger sense than the term is generally applied, I would be most unwilling to inhale even the smallest number of tubercle bacilli, although I am in no sense predisposed to infection.

According to my understanding, the predisposition by heredity need not be the result of phthisical disease of the ancestors, which I have termed *direct hereditary predisposition.* Want of resisting power in the offspring may be the result of a variety of conditions, under which the parents produced a child that easily succumbs to various causes; but if it lives long enough and if circumstances are favorable, it falls a victim to tubercular infection. This I have termed *indirect hereditary predisposition.*

In my 515 cases the question of heredity was fully answered and recorded 501 times—in 14 cases the patients knew so little of their family history that they could not be satisfactorily classified.

Direct hereditary predisposition (phthisical family history) was shown to have existed 202 times as follows:

From the father's side alone in	51 cases.
From the mother's side alone in	80 "
From both parents in	11 "
From father and grandfather alone in	12 "
From mother and grandmother alone in	20 "
From both parents and both grandparents in	3 "
From grandfather alone (skipped one generation) in	8 "
From grandmother alone (skipped one generation) in	17 "

Total, 202 cases, or 39.2 per cent. of all.

As may be seen, the mother and grandmother seemed to transmit a predisposition most frequently. The possibility of this was present in 131 and is evident in 117 cases, whereas on the part of father and grandfather it was possible in 85 and evident in only 71 cases.

Indirect hereditary predisposition could be shown in 217 cases, or 42.3 per cent., as follows:

(*a*) Ninety-two cases were children, the sixth or later in large families, often born in rapid succession, none of the older children having acquired the disease; but in 26 cases younger brothers or sisters were also suffering from or had died of phthisis. The history of these patients was almost without exception that they had been less strong and robust than the older children, or had been sick from various causes a great part of their lives.

(*b*) Twenty-two cases were either one of twins, or the mother had given birth within a year previously to another child. In these cases again, the tubercular patient had nearly always been the weaker one, and delicate from childhood. In two instances the other twin had already died of phthisis.

(*c*) In 59 cases one or both parents were suffering from impaired general health at the time of conception or during pregnancy—chronic diarrhœa, chronic dyspepsia, cancer, syphilis, disease of the genito-urinary organs, uterine disease, etc. There were also histories of sickness or death of brothers or sisters from meningitis (tubercular?), chronic disease of joints, rickets, spinal disease, scrofula, etc. In 14 cases death in the family from measles and whooping-cough was stated to have occurred, and 28 patients gave a history of scrofula in childhood. In 19 cases brothers or sisters were suffering from or had died of phthisis.

(*d*) Forty-four cases gave as part of their histories, that one or both parents were suffering from severe nervous disease previously to the birth of the

patient, including insanity, paralysis, locomotor ataxia, and epilepsy. In 9 instances brothers or sisters were or had been suffering from epilepsy or from chorea; in 8, brothers or sisters were suffering or had died from phthisis.

In 78 of these 217 cases the so-called phthisical habitus was noted, although no phthisical history was present, against 136 in the 202 cases in which direct hereditary predisposition was shown.

Considering, now, these 217 cases, their percentage and the circumstances under which the patients were born, is it surprising that such persons have acquired a depraved constitution, or a predisposition to fall more readily victims to disease?

Is it not reasonable to suppose that the minimum amount of infecting material which in such cases would produce phthisis, would be resisted and overcome by stronger persons coming of a better stock?

There remain now 96 cases in which the family history was good, both as to direct and to indirect predisposition, and in which the health was, as a rule, good from infancy. In these we can believe that either they received a sufficiently large dose of infecting material, that such infecting material was of unusual virulency, to which their relative good resisting-power was inadequate, or that they had become temporarily predisposed. In 56 cases the health was said to be good to the time of the development of phthisis; in 4 the disease followed typhoid fever; in 3 croupous pneumonia; in 8 catarrhal pneumonia; in 5 childbirth; in 1 puerperal fever; in 3 peritonitis; in 1 acute pleurisy; and in 1 measles. The others, as most tubercular patients do, ascribed as a cause "catching cold," by which, perhaps, we should understand "catching tubercular infection."

To show the influence on prognosis of direct, indirect, or no hereditary predisposition, we find from an analysis of my cases that the prognosis does not materially differ, whether direct or indirect predisposition existed. But I was much surprised to find that when hereditary predisposition was absent, six times as many recovered. I have gone over these cases again and again to prove that no error is present; each time with the same result. I then divided the cases into groups according to the years of their occurrence, again with practically the same result.

Table showing the Influence of Heredity upon Prognosis.

	Grouped under.	Number of Cases.	Recoveries.	Per Cent.
I. Direct hereditary predisposition (family history of phthisis),		202	9	4.5
II. Indirect hereditary predisposition,	*a*	92	6	6.5
" " "	*b*	22	1	4.5
" " "	*c*	59	3	5
" " "	*d*	44	3	7
III. No hereditary predisposition,		96	37	37.6

In view of this extraordinary showing, it is very desirable that other observers consult their records, or make proper inquiry hereafter, and publish their results. This will show whether my results are correct or incorrect. For such inquiries a systematically arranged series of questions is absolutely necessary. It is essential that the patient should understand that a full statement of the facts, even if it is necessary to make inquiry of friends, has a most important bearing on their individual case.

The influence of the stage of the disease.—Of course the earlier a case, which is susceptible of improvement, comes under proper treatment and management, the better will be the outlook, and no statistical evidence is required to prove this self-evident proposition. Of the 515 cases, 81 were classed as in an early stage and 434 in an advanced stage. Of the 81 early cases, 11 remained under treatment for so short a time that no material change could be expected; 34, or 55.5 per cent., showed improvement and then relapsed, as a rule from causes within their control —all these have since grown hopeless or died; 17 cases, or 21 per cent., are improved, and 20 cases, or 24 per cent., have recovered. Of the 434 advanced cases the disease progressed without material improvement in 125, or 29 per cent.; improvement more or less temporary occurred in 189, or 43.5 per cent.—all relapsed, many from preventable causes, and have grown worse or have died. Marked improvement with prospective arrest of the disease occurred in 33, or 7½ per cent.; all these have relapsed, often from causes within their control, and have grown worse or died; 48, or 11 per cent., of the cases still remain much improved, and 39, or 9 per cent., have recovered. From a scrutiny of these results it is apparent that had an ideal course been pursued in all cases, many more recoveries would have resulted. The fact is, that such a course was pursued only exceptionally. Taking the improved and recovered cases together we have in the early stage 45 per cent. and in the advanced stages 20 per cent. Of the 515 cases there were three females and one male in whom, although they came under observation early, the disease followed a rapidly fatal course—all deaths occurred within four months. Every effort seemed unavailing to cause even a temporary halt. Aside from the slower course of these cases they differed clinically from acute miliary tuberculosis, in that pulmonary symptoms were more prominent, and the stage of breaking-down and excavation was reached. Physical examination showed the evidence of diffused bronchitis, with many small areas where the respiratory murmur resembled the bronchial. Very little change in the percussion-note was manifest.

In one case the infection could be traced to a cut upon the finger of the left hand, which became

inflamed, as did the lymphatics of the arm, and was soon followed by a glandular swelling in the axilla. The general health began to fail after this and before any attention was attracted to the lungs. The patient and her friends, I was told, had obstinately refused to have the swelling incised, though the tubercular character of this was not suspected. The case came to me with this history and a cough, supposed to be bronchitis, which had existed for three months. The slightly fluctuating, enlarged gland was still noticeable. The patient died ten days later.

Although I could find no source for infection through the blood in the other three cases, I cannot but believe that it must have existed. They all pursued almost an identical course, and the diffused tubercular deposits with numerous broncho-pneumonic centres throughout both lungs were characteristic of all.

The extent of lung tissue involved in any stage necessarily influences prognosis. Under proper management further involvement of the healthy tissue of other lobes, and especially of the opposite lung, as long as general infection has not occurred, can, as a rule, be prevented. The bacilli having no independent motion must probably be first expectorated to reach with the inspired air healthy parts of the lung, though further infection may also occur by the gravitation of the secretions. For this reason it is important that an already infected case does not inhale more bacilli, and one of the first conditions of proper management is so to take care of the excretions, and especially of the expectoration, that the danger from this source may be reduced to a minimum. The tendency to extensive destructive processes without connective-tissue repair, which determines the formation of cavities, and with the latter an increased liability to severe arterial hæmorrhages, and to long-continued suppuration from the walls, with the attending danger of septic absorption and amyloid degeneration of other organs, influences the prognosis very much. But the mere fact that a cavity exists does not necessarily cloud the prognosis, if the cavity is of moderate size and located favorably. It is then of more importance to determine the presence of still active disease and its extent, and whether the cavity is secreting and enlarging, or is dry with a tendency to cicatrize and to become obliterated or lined with smooth, fibrous wall. If there is cicatrization the patient has passed through the critical period of softening and suppuration, and he may continue upon a course of uninterrupted improvement. Large cavities in the lower portions of the upper lobe, and those in the lower lobes, or those that for any reason have an imperfect outlet, are apt to remain inflamed, to secrete profusely, and to discharge irregularly. Such cavities frequently continue to enlarge by progressive breaking-down of their walls and to cause exhaustion, particularly if there is much fever.

The influence of the digestive organs.—As long as a fair degree of digestive power and of assimilation of food can be maintained, and if the disease is not hopelessly advanced, we should not despair. On the other hand, it matters little how how many encouraging signs we may see in a case; unless we can keep up the nutrition our efforts must ultimately prove fruitless. Many cases acquire gastric and intestinal disturbances by the injudicious use of alcoholics and improper food, and by the use of drugs and patent medicines, especially those which contain opiates. There is also a tendency to sympathetic functional disturbances, especially of the stomach. All such disturbances can, as a rule, be controlled by a proper regimen. If, however, structural disease of the digestive organs exists, be it due to the abuse of alcohol, or to long-continued gastric catarrh from other causes; if we have reason to suspect amyloid disease of the vessels of the intestines, of the liver or of the spleen; if we have fatty liver, or tubercular disease of the biliary passages or of the intestine, we cannot hope to nourish our patient thoroughly. In several cases in which I had the opportunity of seeing the results of autopsies upon patients who had followed the so-called "whiskey cure," I was not surprised at my failure to improve the nutrition. There was atrophy of the gastric glands in one case, with dilatation of the pylorus. In another case the stomach was in a state of severe catarrhal inflammation.

Of functional disturbances none has resisted efforts for permanent relief so obstinately as gastric and intestinal accumulations of gas. In mild cases I have succeeded well enough with diet and the administration of salol; but I have had a number of cases in which all measures failed, and the distress occasioned, as well as the interference with the absorption of food, seemed to hasten materially the downward course of the patients. I could not believe that the gas was due to fermentation, but rather attributed it to non-absorption by the intestinal mucous membrane. Occasional watery stools were also present and some failure of the right side of the heart, with variable increase in the size of the liver. The distress was least after maintaining the recumbent position for a number of hours, causing me to suspect that the abdominal viscera were in a state of passive congestion, which interfered with absorption. In neither of these cases was there any improvement.

Purely functional disturbances of the digestive organs frequently accompany the initial stage of the disease, and simulating dyspepsia they divert the attention from the real cause. Much time may be lost by treating the dyspepsia alone, and harm may

be done by restricting the diet, frequently to artificial food-products, which are poor substitutes at all times. Such conditions if improperly managed cause rapid advance of the lung affection, and require forced feeding with milk, eggs, light meats, and especially with vegetables, in small quantities frequently repeated, to be increased by fats after some improvement has been made. Among medicinal agents creasote, bitter tonics, and wines have seemed beneficial.

There are cases that seem to have no disturbance of their digestive organs and have a good appetite, and yet gain nothing in weight or even continue to lose. Upon inquiry it is found that these cases have daily two to three large evacuations. In such cases if the nutrition is not improved by giving less food and by administering it in frequently repeated, small quantities, the prognosis is unfavorable.

Slight peptonuria, demonstrated by Ehrlich's method, has been noted in a number of cases of recent date, no tests having been made in my earlier cases; profuse and continued peptonuria was found only in rapidly progressing and ultimately fatal cases.

Absolute increase in the amount of urates and uric acid I have frequently seen. It is probably due to diminished oxygenation by obstruction and increased venous tension, diminished respiratory surface, and diminution of red corpuscles. Such patients for the time lost flesh. If this condition could not be relieved by inhalations of oxygen in large quantities, and if it persisted, it affected the prognosis unfavorably.

The influence of fever, cough, and expectoration.—Fever, cough, and expectoration are common to all cases of pulmonary tuberculosis. It is their intensity and persistency rather than their presence which influence prognosis. In considering them we should also consider the stage of the disease, the previous management, and the deportment of the patient. The fever, in a case under proper management, and when indiscretions of the patient are excluded, pretty clearly reflects by its amount, the activity and extent of pathological processes at the seat of the disease, and reaches, as a rule, its maximum during the stage of softening, absorption, and excavation. If during that period it is moderate, if areas of softening are small and circumscribed, and if we have one lung or a considerable portion of both lungs unaffected, we need not despair. It is a nice question of judgment to estimate the probable duration of this stage. If the patient's nutrition is still fairly good, and if we succeed in preventing serious loss of flesh, or, better still, if he should show a slight gain, we have good reason to believe that the process will remain circumscribed, that tissue-repair will probably take place, or that the cavities will be small and speedily made, and that the patient will pass safely through this stage. After this, improvement will follow. Such has been my experience with the cases I am considering. When large areas are involved, when the temperature rises very high and becomes several degrees subnormal, once, and occasionally twice in twenty four hours, and if the rise is accompanied with a distinct chill, it is not often that the patient's nutrition can be kept up, and, as a rule, the stage is indefinitely prolonged, and leads to a fatal result. Afebrile periods usually correspond to periods of improvement.

The cough bears a certain relation to the fever, and unless due to non-specific bronchitis is not often troublesome in cases in which the temperature is below 100° F., if over-exertion and fatigue are avoided.

The cases in which the bronchial mucous membrane was extensively involved—the so-called broncho-pneumonias—usually ran their course with higher temperatures, and in these the cough was most severe and exhausting, yielding to nothing short of opiates. The intensity of the cough, its interference with rest, and the effects of opiates on the patient, certainly influenced the prognosis, which appeared, however, always less favorable in the broncho-pneumonic form of the disease. Cough due to catarrhal states of the upper air-passages, or to the symptomatic catarrhal bronchitis, yielded, as a rule, to proper local treatment by inhalations, etc., and did not affect the prognosis.

The quantity and quality of expectoration stand in intimate relation to the stage of the disease. Bloody sputa in the early stage betoken inflammatory changes and extensions; later the sputum comes from ulcerated, inflamed, or congested cavities, especially when the patient has over-exerted himself. The color of the expectorated blood depends upon the time it remained upon the respiratory surfaces; it is, therefore, an aid to diagnosis, but only indirectly of prognostic significance. Purely purulent sputa is rare in phthisis, and belongs to abscess or empyema. A muco-purulent character is the rule, and it is greatest in quantity during the stage of softening and excavation. Cheesy particles in the sputum come from recent cavities; sand-like or calcareous concretions from old inspissated, purulent, or cheesy deposits, or degenerated bronchial glands. They have no special prognostic significence, except that their presence in the lung is likely to cause suppuration until the particles are expelled.

It has been thought that the number and form of the tubercle bacilli in the expectoration could be made a basis for estimating the intensity of the pathological process and for prognosis. I, too, have endeavored to draw some inferences, but offer my conclusions

with some diffidence, and shall be glad to be corrected if I am wrong. It has seemed to me that I am not mistaken. I realize, of course, that the number of bacilli varies greatly, as we select for examination a cheesy particle or one of only muco-pus. To avoid this source of error I have used various expedients which I need not mention in detail, the object being to get a uniform specimen, and I find that I can obtain a pretty equal distribution of the bacilli upon the prepared cover-glasses. If now, repeated examinations showed a steady decrease in the number of the bacilli until finally but a few and occasionally none were found, and especially if the bacilli were very small and thin, and if the peculiar effect in staining, believed to be due to the presence of spores, was absent or but rarely noted, the specimen came from a case that was improving in general health, and in the local conditions, in every instance. In cases running an unfavorable or indifferent course no such results were observed.

The influence of the pulse.—Many of my predisposed cases, in fact almost all of them, showed a much increased pulse-rate, as is common in phthisis, even in the absence of fever, and when the latter was present the frequency of the pulse was usually out of proportion to the temperature. A congenitally small heart, which was frequently associated, does not show compensatory hypertrophy when obstruction exists in the lesser circulation, if fever and other nutritive disturbances are present. Even a heart of normal size soon shows the results of such injurious conditions by a less perfectly filled radial artery and a more frequent pulse-rate. The auspicious cases had a comparatively slow pulse, and when fever was absent the pulse-rate approached the normal. This was observed in all my greatly improved and recovered cases.

The influence of concomitant tubercular disease in the upper air-passages.—In 81 cases, in the early stage of phthisis, tubercular laryngitis was present in 5 only. In the 434 advanced cases it was noted 111 times. I propose to make these cases a special study in the future, especially with a view to show the effects of various modes of treatment according to the extent, location, and stage of the lung affection when the disease of the larynx made its appearance. I may say here that in the majority of cases no results were obtainable from treatment as long as the lung disease was progressive, but in 2 cases in an early stage, and in 10 in an advanced stage, complete cicatrization occurred. These 12 cases still belong to the improved or recovered cases. No case recovered in which the ulcerative and destructive processes were extensive. The epiglottis was seriously involved in 19 cases, none of which recovered. The painful deglutition seriously interfered with nutrition, and the severe paroxysms of cough, too, tended to exhaust the patients, who were nearly all in the last stages. In only 1 case was the pharynx the seat of tubercular disease, and this case also had a small tubercular ulcer of the tongue, with, however, but slight pulmonary deposit; the patient did not improve, but is still alive.

The influence of pulmonary hæmorrhage.—I notice a material difference between the frequency of pulmonary hæmorrhage in my patients in private practice and in those treated in my institution. In the former it occurred in about one-third of all cases; in the latter, in less than one per cent. Besides the anatomical changes which make hæmorrhage possible, over-exertion nearly always preceded it in the cases in private practice and in every case in my institution. In the early stages the hæmorrhage is moderate, results from inflammatory changes, and is simply a diapedesis. In the latter stages moderate hæmorrhage comes from granulating cavities; when severe, it is arterial, and due to the rupture of sacculated or degenerated and still pervious vessels in the cavities. In estimating the effect upon the future course of the disease we must consider the presence or absence of the various other factors which enter into the prognosis. Even a slight hæmorrhage is at least a temporary hindrance to favorable progress, excluding the exceptional cases in which cough and other symptoms are relieved by the local bleeding of a congested area. But tubercular patients can ill afford the loss of blood even in small quantities. The necessary confinement and the loss of blood itself must certainly, for the time being, check further improvement. If treated by all sorts of mineral and vegetable astringents, ergot, etc., given by the mouth, and if the patient is kept on a diet of ice pills and, perhaps, a few spoonfuls of milk or broth, the loss in nutrition is a further hindrance. Profuse hæmorrhage, especially if repeated, leads to rapid exhaustion, and may terminate a case abruptly by suffocation.

The effect of pleurisy.—Pleurisy, if dry and circumscribed, did not influence the prognosis. Indeed, pleurisy may be conservative by causing thickening and adhesive inflammation over cavities which might otherwise perforate and lead to pneumothorax, a complication which is the beginning of the end. Simple pleurisy, with serous effusion occurred in 5 of my cases, and did not seem to exert any material influence upon the subsequent course of the disease, except that the patients lost flesh and strength during their confinement. Tubercular pleurisy, as a complication, has been recovered from in but 2 of my cases; in these the effusion subsequently became purulent, and required resection of a rib. For a time after the operation the patients improved remarkably, but were then lost from observation, and have since died.

The influence of nasal stenosis. — In 483, or 90 per cent. of cases, catarrhal affections of the nose and throat were present, and there was evidence that they had preceded the lung disease in the great majority of cases. In 221 cases the catarrh was associated with nasal obstruction from turbinated hypertrophies, polypoid growths, septal thickenings, deviations and excrescences that markedly interfered with free respiration through the nose, especially at night; but often during the day also, the patients were obliged to breathe with the mouth open when taking exercise. To what extent these conditions may have favored the deep inhalation of infecting bacilli I cannot here consider, but I am sure that nasal stenosis frequently interfered with improvement, which in many cases occurred only after the obstruction had been removed by proper treatment.

The influence of rectal fistula and peri-rectal abscesses.—Rectal fistula was noted in 27 cases. In 3 cases in the early stage I operated successfully, and 2 of these finally recovered; 24 cases were in an advanced stage of the disease; 1 of these recovered and was subsequently operated on at home. In neither of the other cases was an operation attempted, nor did the fistulæ seem to exert any influence on the disease, though they were an annoyance, frequently became inflamed, and discharged continuously. Small peri-rectal abscesses I have observed more frequently, but have not always kept a record of their occurrence. In all but 4 cases they were immediately incised when discovered, and healed kindly. In the 4 cases in which incision was delayed by the patient neglecting to call attention to the swelling, fistula resulted. In several of such cases tubercle bacilli were found in the pus.

In conclusion, the personal hygiene and the healthful environments of patients; their steadfastness of purpose and determination; their own proper estimation of the importance of early measures and of implicit compliance with advice; their willingness to make necessary sacrifices, and also the painstaking management of the physician in charge, and his ability to prevent even slight complications, all exert influences which are none the less real or important because their effects are an unknown quantity.

SELECTED SURGICAL CASES.[1]

BY DONALD MACLEAN, M.D.,
OF DETROIT, MICH.

THE following cases have been selected for presentation in the hope that, whether regarded from a theoretical or a practical standpoint, they may be deemed worthy of consideration. They will be detailed with as much brevity as is consistent with intelligibility.

I desire to call attention here to the value of subcutaneous section of the anterior annular ligament of the wrist, and to a similar operation in the neighborhood of the ankle-joint, especially for the relief of the condition known as compound ganglion. In a communication presented to the American Surgical Association in 1885, I invited attention to this subject, and reported a number of characteristic cases occurring in my own experience. Since that paper was published I have had numerous opportunities to test the value of this method; moreover, I have come to believe that this simple procedure is of great value in other conditions besides the one referred to.

In rapid and violent inflammations involving the tissues of the palm, or those of the dorsum of the foot, whether from a poisoned wound or other cause, the subcutaneous division of the anterior annular ligament will not only afford immediate relief to the patient's suffering, but will do much toward giving the constricted and inflamed tissues an opportunity to recover their normal equilibrium; somewhat in the same way, and on the same principle, that iridectomy affords relief and benefit in certain diseases of the eye.

From a number of characteristic cases I have chosen the two following for the purpose of illustrating this subject:

CASE I.—On November 20, 1887, I was called by telegram to Springport, Jackson County, Michigan, for the purpose of amputating the right hand of Mrs. W., aged thirty-five years. I found the patient suffering intensely from extensive suppuration of all the tissues of the right palm, and with corresponding constitutional irritation and alarming depression.

She was tired of suffering, and willing to submit to anything for relief. On inquiry I found that for at least eight years she had been troubled with a large compound ganglion of the palm. Various methods of treatment had been tried without effect, and a few weeks previously to my visit a seton had been used. Suppuration supervened, and when I saw her the condition was in every respect most critical.

I determined to try one more expedient before sacrificing the hand. Accordingly, chloroform having been administered, I made a thorough division of the anterior annular ligament, from which on recovering consciousness the patient declared herself materially relieved. I did not see this patient afterward, but her medical attendant, Dr. Winslow, informed me that the relief proved permanent, and that, notwithstanding a severe continued fever, with which she was attacked a few weeks after my visit, she made a good recovery, with a perfect, or nearly perfect hand.

CASE II.—This case will serve to demonstrate the

[1] Read before the Surgical Section of the Michigan State Medical Society, at Grand Rapids, June 19, 1890.

value of the operation in a different and, no doubt, more common class of cases:

Mr. A. H., Mount Pleasant, Michigan, aged forty-two years, married, was admitted to the Hospital of the University of Michigan November 14, 1888.

While at work in a saw-mill, November 3d, he bruised the fingers of his right hand in the machinery. The little finger was the only one much injured, and that not so seriously as to stop his work. But he thinks that, on November 7th, he sprained the right hand and wrist. It immediately began to swell, and to give him great pain. The swelling and intense pain continued up to the time of his admission. His family physician used poultices and other applications, but with no relief. When admitted, the right hand and forearm were enormously swollen, and the patient was suffering intensely. Dr. Abbott immediately opened the hand and fingers by free incisions, and evacuated a large amount of pus and dark, decomposing blood. The hand and arm were then placed in hot water, and the patient experienced some relief. On November 15th, he presented himself at the clinic. The good effects of Dr. Abbott's highly judicious treatment had disappeared, and the patient was again in great agony.

Here was a case in which a slight bruise of the fingers had led to the involvement of the entire hand and forearm in a severe inflammatory process, and it was very apparent that unless arrested this process would soon lead to destruction of the parts by gangrene.

Without using an anæsthetic the anterior ligament was at once divided with a fine, sharp-pointed tenotome. Slight hæmorrhage followed the operation, and the patient experienced immediate relief.

November 16. The hand was dressed in bichloride gauze, and a firm bandage applied.

20th. Bandage has been applied, wet, every day, and the patient is improving rapidly. Temperature normal now, while it has been up to 105° during most of the past week.

22d. Glycerin and iodine were painted over the hand and arm to promote absorption. No fever.

24th. Swelling greatly reduced, and pain almost gone. Movement returning gradually. Discharged.

December 20. A letter just received from the patient states that he has resumed work with complete use of his hand. There is slight stiffness of the fingers, which is rapidly disappearing.

REMARKS.—The first hint of this practice undoubtedly came from Syme, the author and source of many advances in practical surgery. Syme, however, operated by free incision, and I trust that I am not presumptuous in claiming, in this instance, an improvement upon his practice by substituting the subcutaneous for the more heroic and certainly more dangerous open method.

The following case of neuroma of the median nerve has seemed to me to possess more than one point of interest:

CASE III.—Mrs. C., aged thirty-one years. Introduced to me by my friend and former pupil, Dr. Frazer, of Sarnia, Ontario.

Patient had had a tumor in her right forearm nearly all her life. Ten years ago it became very painful, and led her to seek medical advice. Removal was suggested, but this she declined and came to Michigan, preferring to place her case in the hands of a quack, who undertook to eradicate the growth by the application of caustic plasters. This treatment resulted in her confinement to bed for a period of eight months, during which her sufferings were very severe, and at the end of that time her tumor was somewhat larger, and a great deal more painful.

On May 8, 1890, I saw the patient and examined the tumor, which was situated about four inches above the wrist, on the right forearm, and was evidently connected with the median nerve. It was impossible to manipulate it much owing to its extreme tenderness. Nevertheless, I was able to determine the important diagnostic fact that it permitted moderately free movement laterally, but in no other direction, a characteristic feature of nerve-tumors.

In short, every fact in the case pointed toward that diagnosis, and as the patient was almost exhausted by her sufferings she readily assented to my proposition to excise the growth. This was done under chloroform without difficulty or delay, although it is only right to record the fact that the patient came nearer to dying from the anæsthetic than any case I have ever seen during the thirty years that I have used chloroform.

Artificial respiration, energetically and persistently applied, proved ultimately successful, and she made a good recovery. In this emergency Dr. Frazer proved a cool and efficient assistant.

REMARKS.—In reference to this case Dr. Frazer recently wrote that the parts supplied by the median nerve were somewhat numb, but that there was a moderate amount of sensation and good motor power. She still occasionally complains of pain in the course of the nerve, but the severe lancinating pains are entirely gone, and the patient looks and feels better than she has done for many years. This case serves to impress the principle that nerve-tumors, if amenable to treatment at all, should be excised. It might also be used to teach the people of Michigan that there are worse things than nerve-tumors, and that of all the ills that human flesh is heir to, the cruelest and most cold-blooded is the quack.

CASE IV. *Tumor of forehead.*—E. S., aged twenty-nine years, a resident of Marshall, Mich., came to my clinic at Ann Harbor, April 8, 1889. Two months previously the patient had received a slight bruise over the middle of his forehead, which was rapidly followed by the growth of a cystic tumor. For this he consulted Dr. Smiley, who tapped the cyst, and on its refilling repeated the operation and

injected iodine. Still it did not disappear, but rather grew worse.

On admission the patient was in good health, but much alarmed about the tumor, which being about the size of a small orange, caused serious disfigurement as well as a good deal of pain.

Pulsation was a marked feature of the growth. Profiting by Dr. Smiley's experience I determined upon radical measures, and at once proposed excision, to which the patient promptly assented. Chloroform having been administered, I made a crucial incision of a sufficient extent to afford free access to the tumor, which I then dissected out from its intimate attachments to the tissues. It was necessary to execute the latter steps of the operation with great care, as the tumor had caused absorption of both tables of the skull, and was intimately attached to the dura.

Its removal was safely accomplished, and the wound carefully dressed antiseptically, and with every facility for free drainage. In three weeks the wound had healed, and the patient was dismissed cured, and, so far as I know, he has continued well.

REMARKS.—It seems very strange that so slight an injury should have resulted in the development of a thick-walled, rapidly-growing, cystic tumor, and that complete absorption of the bones of the forehead should have followed in so short a time. It is also rather remarkable that no further trouble has developed at the seat of operation. It is only reasonable to suppose that in this case a small, unobserved cystic tumor had previously existed, and that the injury caused its rapid development.

CASE V. *Complicated injury of the shoulder-joint.*—H. B. M., aged forty-two years, of Alepna, Mich., had always enjoyed good health until the receipt of the injury to be described.

On December 12, 1889, while employed at his trade of a millwright, the patient received a blow by the falling of a beam fifty feet long and ten by twelve inches thick. The blow was received on his right shoulder and arm. He was knocked first against another timber and from there precipitated to the hard, frozen ground fifteen feet below. A comrade working with him was so severely injured by the falling beam that he died soon afterward.

Investigation ultimately demonstrated that Mr. M.'s injuries consisted of:

1. Fractures of several of the upper ribs near the sternum.

2. Similar fractures near the articulation of the ribs with the spine.

3. A fracture of the anatomical neck of the scapula; that is to say, the glenoid cavity was broken off, and, with the head of the humerus, was carried downward and inward so as to rest upon the thoracic wall below the clavicle.

4. A fracture of the body of the scapula, so that the axillary margin of the bone was completely detached, and driven into the axilla, where it was afterward found lying parallel with the shaft of the humerus.

5. A fracture of both bones of the forearm.

As might reasonably be expected in so complicated a case, some of these lesions were overlooked by the medical men who first examined him.

Within a few days, however, an effort was made to restore the head of the humerus to its proper position, and this effort was repeated several times, but proved unsuccessful.

Five weeks after the injury the patient called on me at Detroit, and on examination I found that while the fractured ribs and forearm had united, the entire right arm was in a position that rendered it a useless and distressing burden. Throughout its entire extent it was greatly swollen and œdematous; voluntary power was absolutely lost, although a slight degree of passive movement could be made at the upper end where the head of the humerus rested on the ribs. The elbow, wrist, and fingers were immovable. Excessive deposits of callus had taken place at the different points of fracture. It would hardly be possible to imagine a more uninviting or unpromising case for treatment.

On careful consideration two courses seemed open in the way of operative interference, viz.:

1. Amputation at the shoulder-joint, which would give the patient—a young, strong man—a good prospect of rapid recovery, though with the loss of his right arm.

2. Something in the nature of a resection of the upper end of the bone, by which a more or less useful arm might be preserved. It was only too plain that unless something very decided could be done to relieve the mechanical obstruction in the axilla, and to improve the general condition of things in that region, amputation would be desirable, as the arm was neither useful nor ornamental to the patient. Of course, without operation, any chance of material improvement or relief was out of the question.

February 18. I operated, having previously obtained the patient's full consent. The operation was undertaken for the purpose of discovering the precise condition of things in the neighborhood of the shoulder, and with the determination to rectify these, if possible; but it was also distinctly understood that, if necessary, the arm should be amputated.

I began by making a long, straight incision down to the humerus, exposing the head and upper part of the shaft, which were deeply imbedded in inflammatory deposit. The head was lodged in and firmly articulated to a well-formed glenoid cavity, which, from its depth and capaciousness, looked more like the cotyloid cavity of the hip-joint.

Careful examination at this stage of the operation conclusively demonstrated that without removing the upper end of the humerus further progress was out of the question. Consequently this was done, with much difficulty, by means of the chain-saw. Serious obstacles to the return of the upper end of the humerus to anything like its original position still existed, and it also appeared that a large, dense mass was in the axilla, in close relation to the upper end of the shaft of the humerus. To this I naturally attributed the compression and strangulation of the extremity as a whole, and I determined to investi-

gate still further, and, if possible, to remove the mass. With extreme difficulty, and in the face of a great dread of inflicting injury upon the axillary nerve and vascular trunks, I at length succeeded in dissecting out and removing a fragment of bone. This fragment was the inferior costa of the scapula deprived of its glenoid cavity, which latter had been broken off and carried inward with the head of the humerus.

When the removal of this fragment had been safely accomplished everything assumed a much more favorable appearance. The arm was easily restored to a comparatively natural position, and the wound was dressed as after an ordinary resection of the shoulder-joint, a counter-opening having been made so that the fluids could find ready escape from the large and deep cavity left by the operation.

No important vessels were wounded, but the operation was a long one, and a considerable amount of blood was lost. Still, the patient rested well, and, although pretty extensive suppuration occurred, he made a good recovery. The most, if not the only, unsatisfactory part of his condition is the persistent stiffness and swelling of the hand and fingers, for which, in my opinion, the fracture of the radius and ulna is chiefly to blame. But even this will, I hope, in time be relieved.

In the performance of the operation here described, as well as of many others, I was ably assisted by Drs. W. G. Henry, F. W. Mann, and Abbott.

CASE VI. *Suppuration, with destruction of the entire left lung, treated by resection of ribs and drainage.*—E. B., aged eight years, was first brought to me at my clinic at Ann Arbor, in June, 1889, when I diagnosed an abscess of the lung, and recommended an operation for the evacuation of its contents and drainage, but I was not afforded an opportunity to carry this into execution. Before long, however, an opening was made by another doctor, who simply punctured the cavity through an intercostal space, and at its upper part. Great aggravation of all his symptoms followed this procedure, and some weeks later he was brought to me in Detroit. By this time the little fellow was in a deplorable condition of weakness and emaciation from excessive discharge of the most fœtid pus, and, of course, with septicæmia.

I now lost no time in making an effort to save his life, although it seemed almost too late. The cavity was tapped, and thoroughly drained by excision of a portion of two ribs, the ninth and tenth, at the lowest point of the abscess-cavity. Through this opening an enormous quantity of horribly offensive pus was evacuated; the cavity was thoroughly douched with hot water, and a large drainage-tube was inserted, through which daily ablutions with boric acid solution and other medicaments were easily and painlessly effected. The quantity of the discharge rapidly diminished, and its quality improved. In a few days the tube was dispensed with, but the ablutions were continued for several weeks. The child's health gradually improved, the discharge entirely ceased, and he is now in perfect health.

CASE VII. *Osteo-sarcoma of the scapula.*—William W., aged twenty-six years, married, a resident of Grand Haven, Michigan, was admitted to the Hospital of the University of Michigan, May 10, 1889, suffering from a large and rapidly-growing tumor of the scapula. Patient was tall, slim, and apparently very delicate. He stated that he had been in his usual health until seven weeks previously to admission. At that time he first observed the growth in his shoulder. It had given him no pain until during the past two weeks, when he received a severe wrench of the arm and shoulder, and from that time on he suffered severe pain, and the tumor grew more rapidly. It had been diagnosed as abscess, and incision recommended.

I at once suspected osteo-sarcoma limited to the scapula, and advised the operation of immediate excision of that bone. The patient's anæmic and emaciated condition, however, made me hesitate, and I placed him on tonic treatment and determined to wait for some improvement in his health. This took place, so that on May 28th, I performed excision of the entire scapula. Chloroform having been administered, I made an incision from the point of the acromion process backward, along the superior margin of the scapula, to the median line of the back, and from the middle of that incision a vertical one downward, to a point at least two inches below the lower angle of the bone. With these free external incisions I was sure to have plenty of room for the subsequent steps of the operation. The hæmorrhage from these preliminary incisions was very severe, and it seemed that the only chance of safety consisted in a rapid completion of the operation. I first freed the posterior margin and the lower angle by rapid sweeps of the knife. I then disarticulated the shoulder-joint, and finally separated the deep attachments of the bone in front and above. The suprascapular artery, much enlarged, was divided and instantly secured. The subscapular was also much enlarged, and was divided and ligated half an inch from its origin from the main trunk. Numerous smaller branches were also ligated. Although the patient was in the amphitheatre only twelve minutes in all, and although every precaution was taken to limit the flow of blood, still a good deal was lost, and he suffered very seriously from the shock, for which stimulants were freely administered. In about twelve hours reaction was fully established.

The subsequent progress of the case was extremely satisfactory. One week from the date of operation the patient walked into the amphitheatre to have his wound dressed, when it was demonstrated that the whole extent of that vast wound had healed by first intention. In three weeks he was dismissed in good condition, and with every prospect of complete restoration to health. Before leaving the hospital he had recovered good movement of and control over the arm.[1]

The tumor was examined by Dr. Gibbes, who pronounced it osteo-sarcoma. The specimen is now in the University Museum.

REMARKS.—Before leaving this case I desire to refer very briefly to the history of the operation of exci-

[1] Since the above was written I have heard with regret of the death of this patient from causes unconnected with the operation.

sion of the entire scapula, and to recall some practical deductions in relation to it. Professor Syme performed this operation in 1856, with at least temporary success, and he believed that no one had preceded him. In a brief preface to his paper, entitled, "Excision of the Entire Scapula," he says: "In the present advanced state of surgery any real addition to its resources must be regarded as a subject of interest. I, therefore, venture to hope that the following account of an entirely new operation will be deemed worthy of separate publication."

Syme's first case was performed in the Royal Infirmary of Edinburgh, October 1, 1856. He was, however, mistaken in believing that no one had preceded him, for Langenbeck had done it successfully a few months previously. This fact, however, does not in the least detract from the merits of Syme's work, which was certainly original and independent. Not only so, but he has left behind him a description of the *modus operandi*, as well as a summary of the principles involved, which, bearing as it does the unmistakable stamp of his surgical genius, will stand for all time as the most authoritative utterance on the subject.

From his first case he deduced the following doctrines:

1. "That the entire scapula may be disarticulated from the shoulder-joint without loss of blood to any great extent.

2. "That the wound resulting from this operation does not necessarily occasion an excessive amount of discharge.

3. "That the arm which remains is not a useless appendage, but a serviceable limb."

So far as I have been able to learn, the tumor removed in my case is by far the largest on record, as it weighed about eight pounds.

In my operation every effort to secure asepsis was used, and certainly the union by the first intention of so extensive a wound might justly be quoted as a testimonial to our modern methods, of which my celebrated preceptor, in 1856, had never even dreamed. But let me quote his own words, immediately following the description of his operation:

"Everything went on favorably after the operation, and a great part of the wound healed by the first intention."

According to the *International Encyclopædia of Surgery*, forty-two cases of excision of the entire scapula have been recorded. Of that number, eight were by American surgeons, and of the whole number exactly 20 per cent. died.

72 LAFAYETTE AVENUE.

The Death of Dr. Frederich Arnold.—The death is announced of Dr. Frederich Arnold, emeritus professor of anatomy in the University of Heidelberg. Dr. Arnold was nearly ninety years of age.

COCOANUT-WATER AS A CULTURE-FLUID.

BY GEORGE M. STERNBERG, M.D.,
MAJOR AND SURGEON, U. S. ARMY.

THE fluid contained in unripe cocoanuts is known in the West Indies as *agua coco*, or cocoanut-water. Unlike the fluid contained in the ripe nut, which has a milky appearance, it is perfectly transparent.

In countries where the cocoanut is indigenous this *agua coco* is very popular as a refreshing drink, and by some is thought to possess valuable diuretic properties. At railway stations in the country, and at places of refreshment in towns, piles of the unripe nuts are to be seen, and at a moment's notice one may obtain a tumblerful of the fluid at very small expense.

At the time of my first visit to Cuba, in 1879, the idea occurred to me that this fluid might be a useful culture-medium for bacteria, and upon making the experiment I found that various species grew in it most luxuriantly.

As it is contained in a germ-proof receptacle no sterilization of the fluid is required when it is transferred with proper precautions to sterilized test-tubes, or is drawn directly from the nut into the little flask with a long and slender neck, which I am in the habit of using for fluid cultures. In these it may be preserved indefinitely, remaining perfectly transparent and ready for use. Heating the fluid causes a slight precipitate.

In the investigations which I have made in Havana during the past two years I used this fluid very extensively and found it a great convenience to have a sterile culture-fluid always at hand ready for use at a moment's notice. Moreover, it has certain special advantages for the study of the physiological characters of various bacteria and for the differentiation of species. It contains in solution about four per cent. of glucose in addition to vegetable albumin and salts, which alone would make it a useful nutrient medium.

Certain microörganisms multiply in it without appropriating the glucose, while others split this up, producing an abundant evolution of carbonic acid, and giving to the fluid a very acid reaction. As obtained from the nut it has a slightly acid reaction, which makes it unsuitable as a culture-medium for certain pathogenic bacteria, but when desired it is a simple matter to neutralize it. For a large number of species of bacteria and for the saccharomycetes it constitutes a very favorable medium. Since my return from Cuba I have obtained an analysis of this fluid through the kindness of Professor Remsen, of Johns Hopkins University. Six unripe cocoanuts sent to me by my friend, Dr. Daniel Burgess, of Havana, were placed by Professor Remsen in the hands of Mr. L. L. Van Slyke,

Ph. D., for chemical examination. I have received from Dr. Van Slyke the following report of the results of his analyses:

1. Weight of fluid obtained from each nut varies from 230.5 grammes to 383.7 grammes, the average being 339.1 grammes.

2. The specific gravity (at 15.5° C.) varies from 1.0215 to 1.0246, the average being 1.02285.

3. The amount of water in the fluid from each nut varies from 94.37 per cent. to 96.43 per cent., the average being 95 per cent.

4. The amount of ash or inorganic matter in each varies from 0.575 per cent. to 0.675 per cent., the average being 0.618 per cent.

5. The sugar is mainly in the form of glucose, with traces of cane-sugar. The amount of glucose varies from 3.45 per cent. to 4.58 per cent., the average being 3.97 per cent.

6. The fat varies from 0.084 per cent. to 0.145 per cent., the average being 0.119 per cent.

7. The amount of albuminoids in each varies from 0.095 per cent. to 0.205 per cent., the average being 0.133 per cent.

HYSTERICAL APHONIA,

With Especial Reference to a Plan of Treatment, and with the Report of Cases.[1]

BY J. A. BACH, M.D.,
OF MILWAUKEE, WIS.

ONE of the many manifestations of hysteria is the so-called hysterical paralysis of the muscles of the vocal cords, resulting in aphonia, a condition that is most interesting and instructive, inasmuch as it can be so readily observed from its full development to perfect cure. The lack of proper central stimulation is well illustrated here. Examination with the laryngeal mirror shows the cords to be of nearly a normal color. If a strong effort at intonation be made by the patient, the cords quickly approximate but as quickly recede, so that voice is not produced, although apparently the effort of the patient is continued. The central nerve-stimulus is lost and the muscles of phonation are practically paralyzed. This condition is often accompanied with paresis of the muscles of the tongue and pharynx.

It is well established that the impediment to conduction is not situated in the peripheral motor nerves, for the electrical reaction remains normal. It would further seem, from the results of treatment in the following cases, that there is no impediment at all to conduction, but only a lack of the production and correct application of a central stimulus.

The etiology of hysterical aphonia is similar to that of other hysterical conditions. It is less a local trouble than a general one manifesting itself locally. In many cases no cause is apparent, and the voice may disappear either suddenly or gradually. The affection is limited to the period between puberty and the menopause.

Treatment.—The various modes of treatment practised and advocated have met with success in probably the majority of cases, but the results have often been only temporary or incomplete. This has been the result with the various methods of electrical treatment, whether centrally or locally directed; also, with the administration of the different nerve tonics and sedatives, as well as with other medicinal means. Furthermore, the time consumed in securing definite results has, in many cases, been considerable.

The plan of treatment to which I wish to draw special attention proposes to do away with all such means, and teaches the patient inductively to regain control of the larynx, to innervate properly the muscles of the cords, and to produce voice as a beginner on the cornet would learn to produce his first tones.

The greatest difficulty with the hysterical patient is the production of the first tone, as such patients are generally unable, through their own efforts, to produce any sound whatsoever. This initial difficulty, however, can always be overcome in a few moments by the assistance of reflex action. For this purpose a strong irritant, whether mechanical or chemical, may be applied to the larynx so as to excite cough. This, of course, requires no effort on the part of the patient. Having excited this cough once or twice the patient will be able to reproduce it independent of the irritant. The cough is short and of an explosive character.

After repeating the cough five or six times the patient will have gained sufficient control of central stimulation to produce a cough. It now becomes a simple matter to continue this cough and to pronounce, more or less distinctly, the vowel "*a*" at each effort, and after a few efforts to substitute the vowel "*e*," and so on, until all the vowels have been coughed. After this is repeated several times, the element of cough can easily be eliminated from the vocalization, when we have left the pure vowel-sound, which, without effort on the part of the patient, can be combined with consonants, as, for instance, with "*d*"—"*ad*," "*ed*," "*id*," "*od*," "*ud*," first placing the vowel before the consonant and then reversing this. It would not be advisable to attempt the articulation of words at this stage, but better to combine the vowels with single consonants, gradually increasing the duration of the sound. The patient is thus led to speak words without resisting, wilfully or uninten-

[1] Read before the Milwaukee Clinical Society, June 10, 1890.

tionally. The time occupied in this procedure need not be more than half an hour, although it is advisable to give several treatments, in order to place the patient beyond the possibility of relapse by impressing her with the fact that she produced the sound by her own efforts, and that it is due to a lack of effort if the voice is again lost. Show her how, by coughing if necessary, she can go through the same process as before.

A report of the following cases will illustrate results obtained in apparently unfavorable subjects.

CASE I.—Miss B., aged twenty-eight years, poorly nourished, anæmic, and of a neurotic type, came under my care for treatment in June, 1889. For about seven years she had been unable to speak or whisper, and she carried with her a tablet upon which all communications were written. She was very despondent, and had but little hope of relief, as she had had nearly continuous treatment of various kinds for more than three years.

Upon examining the larynx I found a very characteristic picture of hysterical paralysis of the vocal cords, and, in addition, an infiltration of the ventricular bands, yet not sufficient to prevent the proper action of the cords. Although the paralysis had existed so long the resulting atrophy was not very marked. One peculiarity of the case was her imagined inability to whisper. As her breathing power was fair there was no good reason for this complication. The patient was of a fairly intelligent class and I explained to her the condition as well as I could, assuring her that with her coöperation it would be perfectly possible to effect a cure in a short time. After having shown her the folly of not being able to whisper, and that whispering is not a function of the vocal cords or larynx, and is produced by the modifying influences upon the breath by organs above the larynx, she gained confidence, and I had at least a whisper to begin with. It now remained again to direct properly central innervation of the vocal muscles, which, according to the plan proposed, was accomplished as readily and in as short a time as if she had been aphonic for only a week. The other pathological conditions of the larynx were treated for some time before the patient was discharged.

CASE II.—Mrs. J. H., a Jewess, aged forty-three years, married. This lady was well nourished and in perfect general health, but for about ten weeks had been unable to speak, for which difficulty she had been treated without result. The laryngeal picture was one of hysterical aphonia, with considerable congestion; no other changes were found. Patient asserted that she had contracted the trouble through a severe cold, but I elicited the additional fact that a quarrel in the family about the time of contracting the cold played a rather more important factor than the cold itself.

Treatment was applied as in the preceding case, and at the second visit the patient was discharged, perfectly cured.

CASE III.—Miss W. B., a teacher, aged thirty years; well nourished, and of a neurotic type, had, seven months previously, lost her voice. In consequence of this she was obliged to give up her occupation as teacher.

During this time she had been under various modes of treatment by different physicians. One doctor told her that her throat and larynx were "swollen shut."

Here again the laryngeal image was characteristic. The condition was uncomplicated, and my prognosis was favorable. The treatment resulted in a cure in fifteen minutes, although she made a second visit before I discharged her.

The results in these cases were so satisfactory and so direct that all other means of treatment would seem superfluous.

It has occurred to me that, could other hysterical conditions be brought under such direct control and treated upon a similar plan, we would not so frequently hear of Christian science and faith-cures after so-called medical science has failed.

CLINICAL MEMORANDA.

SURGICAL.

A Case of Malignant Disease of the Kidney.—February 14, 1890, I was called to see J. J. P., male, aged forty-three years, a farmer by occupation. His pulse was 100, and his temperature 99.2°. He complained chiefly of a lame back and pain in the lumbar region, extending down the thighs to the knees, and occasionally to the ankles, on attempting to move. The pain was more marked on the left side than on the right. He was able to move about on crutches, and was more comfortable while sitting up than when lying down. Just before my visit he had had several paroxysms of severe pain in the region of the stomach, accompanied with dyspnœa.

Upon examination I found a tumor in the left lumbar region, extending from the last rib to the crest of the ilium and the same distance transversely, with its centre about at the external border of the erector spinæ muscle. With a hypodermic syringe I drew out, from about one inch below the surface, a sero-sanguinolent fluid, which was odorless. Upon inquiry I found that his previous health had been good, as was also his family history.

His account of his present illness was as follows: About June 1, 1889, he began to be troubled with pain and lameness which interfered with his work. He also could feel what he described as the sensation of a lump in his abdomen. As time passed on, the original sensation of a tumor was replaced by pain. He was seen on November 23d, and again December 23d, by a reputable practitioner, who treated him for rheumatism. From December 23d, he was confined to his home.

In January he was seen by another practitioner and the first diagnosis was confirmed, although the tumor was at that time quite prominent. As the other symptoms increased the patient began to be troubled with constipation, which was evidently due to pressure on the descending colon. At no time was there much pain in the tumor itself.

I did not examine the urine microscopically, but chemically I could detect nothing abnormal except an excess of urates.

I could get no history of anything that threw light on the case, except a sprain of the back, in April, 1889.

My diagnosis was nephritic or perinephritic abscess, and I advised an operation.

February 21st, Dr. G. L. Pritchett, of Fairbury, Neb., saw the patient with me, confirmed my diagnosis and also advised operation. He thereupon proceeded, with my assistance, to open the cavity by a free incision about midway between the last rib and the crest of the ilium, extending in the direction of the fibres of the external oblique muscle. About a pint of sero-sanguinolent fluid and broken-down tissue, apparently kidney tissue, escaped. All parts within reach of the finger seemed to be normal except the kidney, which was so disorganized to be unrecognizable. The wound was irrigated with bichloride solution, a drainage-tube inserted to a depth of three inches, the cavity packed with iodoform-gauze, and dressed externally with iodoform-gauze and bichloride cotton.

There was considerable discharge at first; later it grew less but never stopped.

The results of the operation were the disappearance of pain and great relief to the patient. On March 15th he walked from his chair to his bed without crutches for the first time for two months. His temperature had gradually fallen to normal. He sat up from one to four hours a day after March 10th. Until March 15th he improved so much that his ultimate recovery seemed certain. On March 7th I dressed the wound with bichloride-gauze and stopped using iodoform, after which there was more pus. Between March 29th and April 14th, I opened three small cavities, containing pus, near the original opening; one in the cicatrix formed by the partial healing of the first operation. In each I inserted a tube to a depth of from two to four inches.

On April 20th, Dr. G. L. Pritchett, assisted by Dr. Eaton, of Fairbury, Neb., and myself, again opened the cavity, removed much broken-down tissue and packed the wound with bichloride-gauze. The patient's general health did not fail much until June, but the wound was more unhealthy after about March 15th. It did not heal after the second operation, but grew deeper and small cavities occasionally opened into the main one. The swelling increased until it was about ten inches in diameter. It also seemed to increase internally and to press on the nerves—causing a return of the original pain though to a less severe degree.

From April 1st, the temperature varied irregularly from the normal up tc 104°, and there was an occasional chill. After the first operation he had attacks of vomiting, but during most of the time his appetite was good. About June 15th, he became unable to sit up, and the discharge increased and was very fœtid. From then until his death, June 26th, the discharge was so great that it was necessary to place an oilcloth under the sheet, and to change the bedclothes several times a day. The odor became very offensive. Gangrene appeared about two days before his death, that is, in the parts exposed to view. Judging from the odor I am sure that internally it commenced earlier.

For about a week before death the urine was much diminished in quantity. It contained no albumin. Further examination was omitted for want of instruments.

Death occurred by asthenia. My opinion is that the abscess was caused by a malignant growth, although no autopsy was held.

A. C. AMES, M.D.
REYNOLDS, NEBRASKA.

Abscess of the Prostate Cured by Perineal Section.—Abscess of the prostate of idiopathic origin is sufficiently rare and serious to warrant the report of the following case:

Mr. C., aged seventy-two years, a prominent agriculturist and legislator, was attacked quite suddenly with pain in the perineum and anus. He had suffered for several months from constipation, and thought the "straining at stool brought on piles," as he expressed it. His family physician gave him some soothing ointment, but it afforded him no relief. The parts about the anus became greatly swollen, evacuation of the bowels was very painful and the urine was voided with great difficulty. He had fever, lost appetite, and had remitting pain of a throbbing character.

I saw him in consultation after he had been sick a week. He was delirious, had chills every few hours and profuse sweats. Anodynes and quinine were being used freely. The parts about the anus were so œdematous that a digital examination *per rectum* could be made only with difficulty. However, a smooth oval tumor was felt in the region of the prostate. It encroached upon the rectum and appeared to push the bladder upward and backward, elongating the urethra. There was no history of previous urethral or vesical disease, and a sound met little obstruction on the way to the bladder.

I diagnosed an abscess and felt an indistinct sense of fluctuation on placing my finger in the rectum behind the tumor and pushing it forward toward the perineum, where I made counter-pressure with the finger of my other hand. Without an anæsthetic a sound was passed into the bladder and given to an assistant to hold, as in the operation for perineal lithotomy—the patient being in the lithotomy position. Then I pushed or pulled the tumor down against the perineum with a finger of my left hand in the rectum, and introduced the point of a straight bistoury through the integument in the median line of the perineum about one inch in front of the anus, and pushed the blade straight back into the tumor, while the urethra was held up out of the way of incision by my assistant with the sound. As the pus began to flow the incision was carried toward the anus until it was free enough to empty the abscess thoroughly, which contained about two ounces of pus.

The subsequent treatment was washing the abscess cavity daily with a fifty-per-cent. solution of peroxide of hydrogen and the internal use of bitter tonics. The patient's recovery was perfect and uninterrupted.

HAL C. WYMAN, M.S., M.D.,
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OBSTETRICAL.

Double Cephalhæmatoma.—A cephalhæmatoma on either parietal bone in a newly-born infant is quite common,

There is probably not a general practitioner of any experience in obstetrics who has not become familiar with it. At least ten have been seen by the writer in hospital and private practice. A double hæmatoma, on the contrary, is very rare and gives the infant's head a much more deformed appearance. Curiously enough, two cases have occurred in the writer's service in the Maternity Hospital within eighteen months. The first was bilateral, on each parietal bone, and unusually large; it was reported in the *University Medical Magazine*, with an illustration. The second has been under observation for more than three months. The blood-tumors were situated on the right parietal bone and on the right side of the occipital bone. Each was as large as though a small crab-apple had been inserted under the scalp, and the two together gave the head a very curious appearance. They appeared three days after birth. The mother was a primipara, and the labor lasted in its three stages respectively six hours, two hours, and ten minutes. The labor was easy, the position of the vertex was right occipito-anterior. Nothing was done for the tumors and they slowly subsided; but still, three months from their appearance, there are decided lumps on the infant's head. If the blood-tumor is large, and if the child cannot be kept under observation a long time, it is a question whether it would not be better to aspirate antiseptically about a week or ten days after the formation of the tumor, as at this time there would be little likelihood of a fresh subcranial effusion.

BARTON COOKE HIRST, M.D.,
Professor of Obstetrics in the University of Pennsylvania.

MEDICAL PROGRESS.

The Uselessness of Quinine in Non-malarial Diseases.—We use the term "malarial" to define a certain group of symptoms, but more frequently to hide our ignorance of the true nature of diseases, especially of those that are attended with febrile phenomena. Hence the common use of quinine in many varieties of diseases.

The observations of Roux, Laveran, Collin, and others, have almost established the fact that malaria is a disease of the country, and that large cities seem gradually to create for themselves an immunity against paludal disorders.

DR. JOAQUIN L. DUEÑAS (*Crónica Médico-Quirúrgica de la Habana*, Havana, July, 1890, No. 7) publishes an able article on the use of quinine in a variety of diseases, and his results corroborate the experience of Laveran, Maillot, Dutrenlean, Jaccoud, and others, with regard to the use of the drug in the treatment of disease.

Dr. Dueñas's observations were made in Havana. He asserts that this city, contrary to what might be expected, is particularly free from malarial infection, and that it is only in a few sections of the town, where the pavement is imperfect, and where there is much decomposing organic matter, that cases of true malarial fever are met. Thus, of 3961 patients treated by him in the course of nine consecutive years the death-rate was only $7\frac{1}{16}$ per cent. Of this large number of persons, 1694 suffered from apyretic disorders, while 2267 presented febrile symptoms. Of these fever cases, 774 were of an infectious character, and of the latter only 70 could be classed as malarial, thus: intermittent fever 42; remittent fever 18; pernicious fever 6; malarial cachexia 4. Of the 8 deaths from paludal poisoning, among the 70 cases, 6 were due to pernicious fever and 2 to remittent fever. The remaining 704 pyretic affections comprised typhoid fever, yellow fever, smallpox, varicella, measles, scarlatina, miliary tuberculosis, erysipelas, and septicæmia.

With regard to the employment of quinine in this large number of cases, Dr. Dueñas used it extensively in the 70 malarial cases, and in the non-malarial diseases, only in a certain number of cases of typhoid fever and erysipelas.

In the 1694 cases of a non-febrile character the remedy was employed more especially as a cardiac and vascular tonic and as a nerve stimulant. Of these cases, 1435 completely recovered, 83 died, and the results in 173 could not be ascertained, giving a mortality of 5.65 per cent. The diseases most commonly met with were the catarrhal affections of a rheumatic origin, neuroses, chlorotic neuralgias, and scrofula.

Quinine was found of great service in certain congestive conditions, in hæmorrhages, non-febrile rheumatism, idiopathic and constitutional neuralgias, migraine, asthma, cardiac weakness, whooping-cough, and in other diseases, which, although not dependent upon malaria, frequently assume the intermittent type. Of all these latter diseases, neuralgia was found to be the most frequent, and it yielded easily to the use of quinine. Of 228 cases treated successfully by the drug only two were due to a distinct malarial poisoning.

But the most important part of Dr. Dueñas's experience is with reference to the employment of the drug in febrile disorders not dependent upon malaria. Of the 2267 cases of this nature treated, 993 were catarrhal affections and diseases of the mucous membranes; 774 infectious pyrexias; 272 organic and other inflammations; 124 tubercular and rheumatic diseases, and the remainder were such specific diseases as diphtheria, dysentery and tetanus, and ephemeral or continued fevers.

Although possessing excellent antiphlogistic and antiperiodic properties, quinine was often harmful in certain catarrhal affections of the respiratory apparatus, such as laryngitis, bronchitis, and acute broncho-pneumonia. In these diseases a marked reduction of temperature after the administration of quinine was never observed.

The same results were observed in the treatment of catarrhal affections of the digestive organs. In cases of mucous and hepatic disease, in febrile stomatitis, and in acute gastritis, the temperature could be lowered only by means of ipecacuanha, and the resolution of the disease was hastened by the application of local emollients, rest, diet, and hygienic measures. It was noticed that in such cases quinine prolonged the febrile stage and the duration of the disease. Cases of acute enteritis, enterocolitis, cystitis, endometritis, and other local diseases of the mucous membranes, were successfully treated without the aid of quinine. In many of the cases the drug exercised an injurious influence, even when the disease was malarial. The drug was also found harmful, and even hastened death, in cases of infantile broncho-pneumonia.

In the infectious febrile disorders, Dr. Dueñas used the remedy only to reduce high fever and as a cardiac and vascular tonic, except in cases with malarial symptoms. He employed it in moderate amounts in some septicæmic diseases, in erysipelas, in typhoid fever, and in miliary tuberculosis; but never in smallpox, measles, scarlatina, or yellow fever. After a short experience the drug was discontinued in the treatment of typhoid fever and septicæmias.

It was found useless in malarial disorders of an adynamic type. In the few cases of pernicious fever in which quinine was used as the chief remedy, death was invariably the result. But whether death was due to the medicine or to the disease cannot be determined.

In malarial remittent fever, quinine produced excellent results; but in those forms of disease known as typho-malarial, in which the most prominent symptoms are typhoid, the uselessness of quinine was most remarkable. Here the drug, owing to its local action, prolonged the irritation of the gastro-intestinal mucous membrane: besides, it seemed to weaken the system, to diminish organic resistance, and to predispose the patients to attacks of syncope, in which the degeneration of the cardiac fibre was a frequent cause of death.

The remedy was found useful in erysipelas and in the treatment of acute articular rheumatism, but useless in dysentery, diphtheria, and all forms of septicæmia, especially that occurring in the puerperal state.

In localized cerebral congestions dependent upon tubercular disease, quinine often did good when given in moderate doses. In the hyperæmia of the meninges, so frequent during the period of dentition, and in other infantile disorders, the alkaloid produced most brilliant results in doses of from 3 to 4 grains, according to the age of the patient. On the contrary, in meningeal irritation due to anæmia, the remedy was not only useless, but dangerous.

Dr. Dueñas found quinine useless in the fever of syphilitic, chlorotic, and hysterical subjects, and in the fever of dentition.

Treatment of Pediculi Pubis.—

℞.—Vinegar . . . . 5000 parts.
Corrosive sublimate . . 1 part.—M.

This is said to be recommended by BROCQ.—*Revue Thérapeutique Médico-Chirurgicale.*

Treatment of Paroxysmal Tachycardia.—HUCHARD, in a clinical lecture delivered at the Hospital Bichat, gives the following directions as to the treatment of this severe affection; dividing the treatment into first that devoted to the care of the patient during the attack, and second, to his care between the paroxysms.

If the man is standing, he must be made to lie down on the right side in as nearly a horizontal position as possible, and every measure taken to relieve him of mental or physical disturbance. Compression may be applied over the right carotid artery, while in some cases a deep inspiration may give relief. In either case the remedial result is due to the effect on the vagus nerve. While these measures are useful in some cases, Huchard himself employs others, such as the application of a bichloride of methyl spray to the præcordium, the back of the neck, or the chest. Sometimes active vesication over the præcordium is useful. He also gives at the time of the onset of the attack, digitalis by the mouth, if possible, or, if the stomach is irritable, by rectal injection, and finds that in moderate doses it does great good. When the attack is prolonged and threatens life, and when cardiac dilatation is imminent, venesection may be resorted to, or, in a plethoric person, local bloodletting from the præcordium be carried out. When cardiac weakness is very marked and syncope is a pressing symptom, hypodermic injections of ether or caffeine may be used, and nitroglycerin given or nitrite of amyl inhaled. These last remedies are absolutely contraindicated in those instances in which low arterial tension already exists.

The stage of intermission is to be treated by dieting and the proper use of drugs. The patient must take neither coffee, tea, nor alcoholic drink, nor must he use tobacco. All stimulating foods must be forbidden, and everything done which will tend to efface any tendencies to subsequent attacks. In each case we must seek for a cause and overcome it. Huchard uses arsenic as a general systemic tonic, and as an alterative particularly affecting the nervous centres. In those instances in which the arterial tension is below normal, he recommends pills of sulphate of quinine and ergot, as follows:

℞.—Sulphate of quinine } of each 1 drachm.
Aqueous extract of ergot }
Extract of nux vomica . . . 1½ grains.

Make into 40 pills, and give 2 or 3 pills two or three times a day for six weeks or two months, and accompany them with 1 to 2 drops of Fowler's solution. Digitalis may be given in constant but small doses for a long period if cardiac weakness is present. In some cases prolonged avoidance of mental or physical exertion is absolutely necessary if a cure is to be arrived at.

Treatment of Chilblain.—BOELZ, of Tokio, states that the treatment of chilblain should consist, first in washing with hot water, and second in applying to the surface the following mixture:

℞.—Caustic potash . . . ¾ grain.
Glycerin } of each . 6 drachms.
Rectified spirit }
Distilled water . . . 2 ounces.—M.

This preparation is generally not too irritating, and produces a cure in the space of two to three days.—*Rev. Gén. de Clin. et de Thérapeutique.*

Syrup for Infantile Constipation.—

℞.—Podophyllin . . . 1 grain.
Alcohol . . . . 1¼ drachm.
Syrup of red raspberry . 3 ounces.—M.

Dose: from a teaspoonful to a dessertspoonful every morning, according to the obstinacy of the constipation. —*L'Union Médicale*, August 5, 1890.

Treatment of Sycosis.—ROSENTHAL applies the following in this condition:

℞.—Tannic acid . . . 15 grains.
Milk of sulphur . . . 30 "
Vaseline . . . . 5 ounces.—M.

During the day no applications are used, but at night the ointment is thoroughly applied. The following, recommended by Hebra, may also be resorted to:

℞.—Tannic acid . . . 75 grains.
Milk of sulphur . . . 150 "
Oxide of zinc } of each . 9 drachms.
Starch }
Vaseline . . . . 1½ ounces.—M.

After the ointment is applied, it is covered with iodoform-gauze.—*Rev. Gén. de Clin. et de Thérapeutique.*

Ointment for Syphilitic Alopecia.—According to *L'Union Médicale*, July 31, 1890, MAURIAC recommends the following application for the relief of syphilitic alopecia:

℞.—Sulphate of quinine } of each 7½ grains.
Turpeth mineral }
Suet . . . . . 1 ounce.—M.

Make this into a pomade, and apply night and morning. Every second day use the following wash:

℞.—Carbonate of sodium } of each 15 grains.
Boric acid }
Distilled water . . . 8 ounces.

If the disease persists, a lotion of mercuric chloride of the strength of 1 to 500 or 1 to 1000 may be used, or in other instances yellow precipitate ointment will be more efficacious.

A Simple Ointment for Pruritus.—BALFOUR reports that he has almost never failed to obtain prompt relief, in cases of pruritus of the anus and vulva, from an ointment containing eighty grains of calomel to the ounce of vaseline or other unguent.

A Death from Chloroform.—M. SOTTAS (*Arch. Génér. de Méd.*, July, 1890) reports a case of death under chloroform in a patient who had previously been chloroformed on several occasions, the last time but one month prior to the fatal anæsthetization. The chloroform used was mixed with one-fourth of ethylic alcohol. The patient had been operated upon several times for tubercular disease of the bones, but was coughing very little and presented no signs of advanced pulmonary tuberculosis.

He bore the early administration well; the conjunctival reflex, the pulse, and breathing being carefully watched. The patient was turned upon his side, in order to reach the dorsal region, where a cold abscess was situated, the opening of which was the object of the operation. At this moment a general muscular contraction of the trunk took place, and he suddenly and without warning ceased to breathe. The eyelids opened, the pupils dilated, the conjunctival reflex disappeared, the face and chest became dark-colored, and, in spite of prolonged artificial respiration, electrical stimulation, oxygen inhalations, and ether injections, he gave no sign of life except a few attempts at spontaneous respiration. Two huge pockets containing pus were found at the autopsy, the one in front of the dorsal spine pushing the heart forward and displacing the aorta to the left, the other posterior to the spinal column in the lumbar region, and reaching down to the sacrum. A fistulous communication existed between the two pockets. The heart was normal in size, and filled with dark blood. The lungs were adherent to the pleura, much congested, and the aorta was slightly atheromatous.

The Effects of Salol on the Kidneys.—HESSELBACH (*Practitioner*, August, 1890) has made a valuable study of the effects of carbolic acid and salol on the kidneys. He finds that carbolic acid continuously administered to rabbits produces anæmia and fatty degeneration of the renal cortex, with disintegration and destruction of the epithelium. Salicylic acid given in the same manner produces hyperæmia of the cortex with extravasations into the interstitial tissue and the tubules. Salol given continuously produced pathological changes almost identical with those caused by carbolic acid, showing that the latter constituent and not the salicylic acid gives to salol its toxic properties.

Hesselbach deduces the following practical conclusions from his observations:

1. The large proportion of carbolic acid contained in salol renders it so toxic a substance that its unrestricted therapeutic use is fraught with danger.

2. In renal disease, acute or chronic, salol is contraindicated.

Cystitis in Diabetes.—SCHMITZ (*Berliner klinische Wochenschrift*, No. 23, 1890) draws attention to the occasional occurrence of cystitis in the course of diabetes. It is caused, he thinks, by fermentation of the saccharine urine. Schmitz distinguishes three stages of the chronic form—acute cystitis in diabetes being unusual. The first is mild with no subjective symptoms; the urine is somewhat turbid, faintly acid, and contains numerous mucous corpuscles and a few pus-cells. From this the second develops, when the urine becomes more turbid, has an unpleasant smell, and contains bacteria, phosphates, and more pus. In the third stage the fermentation may cause the evolution of gas which is passed through the urethra, and the subjective symptoms of cystitis are marked.

To cure this condition the bladder should be frequently washed out with a solution of salicylate of sodium, to prevent decomposition of the urine; the diabetes, of course, being carefully treated by the usual methods.—*Practitioner*, August, 1890.

Lactic Acid in the Treatment of Diarrhœa.—HAYEM (*L'Médecine Moderne*, July 5, 1890) calls attention to the value of lactic acid in the treatment of the diarrhœas of adults as well as in those of children. He thinks that in small doses it increases the power of gastric digestion; that in moderate quantities it is probably absorbed and changed in the blood; but that after large doses—more than 2½ drachms daily—it appears in the urine and fæces. The large doses, however, do not cause any disagreeable symptoms, and Hayem has given as much as 2½ drachms daily for several weeks. He prescribes the acid as follows:

℞.—Lactic acid . . . 2½ to 3 drachms.
Syrup . . . . 6 ounces.
Water . . . . 7 ounces.—M.

Half a tumblerful to be taken between each meal.—*London Medical Recorder*, August, 1890.

THE MEDICAL NEWS.

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GASTRIC NEUROSES.

WITHIN recent years considerable progress has been made toward a clearer understanding of the various morbid conditions which have long been classified under the rather vague and ill-defined heading of "dyspepsia," with, perhaps, the occasional addition of an adjective, like "functional" or "nervous," which added but little to our knowledge. The readers of THE MEDICAL NEWS have been kept fully informed of current researches, not only by comments in the editorial columns, but by original communications—notably a paper read by DR. FREDERICK P. HENRY before the Philadelphia County Medical Society—and by abstracts of the more important communications to other journals, American and foreign.

The highly elaborate classifications proposed by many authors might, however, be much simplified without loss to our comprehension of the subject-matter—the more so as the association of morbid states is usually complex, derangement of secretory function being usually an accompaniment of disturbance of motor function, and *vice versa;* and, as just exemplified, no matter how elaborate our subdivision of morbid conditions, we are still unable to escape from the use of such general terms as "disturbance," "derangement," etc.

To a purely palliative treatment it may, of course, make considerable difference whether the gastric juice contains an excess of acid to be neutralized by the administration of alkali or whether it is deficient in acidity, requiring artificial aid for digestion by acids medicinally ingested. And so with the other refinements as to excess or lack of secretion. The careful physician will seek to inform himself as accurately as possible of the existing conditions in each individual case. When, however, more radical treatment is considered, the question is not as to what particular aberration of secretion or motion may be present, but whether that aberration has a local or a central cause. For not only may either a local or central cause apparently give rise to similar conditions, but the same cause, whether local or central, may give rise in different individuals to dissimilar conditions.

The circumstances modifying the causative action, so that what brings about supersecretion in one case, in another brings about superacidity, and in a third, perhaps, a diminution of secretion or qualitative lack of acid, are probably transient and unimportant. They are like the currents of wind determining the fall of an apple upon this or that particular spot; while the determining cause of aberration, independent of its direction, is some imperative action, like the gravitation which makes the apple fall, whether here or there.

REMOND (*Archives Générales de Médecine*, June, 1890) publishes a contribution to the study of "Mixed Neuroses of the Stomach," which contains the history of several instructive cases. In one the predominant phenomenon was excessive secretion, which occurred with any excitation or even independent of excitation. In such a case we have, evidently, an instability of the nervous apparatus controlling secretion, an excessive catabolic action, leading, eventually, to a failure of compensatory anabolic action, when the phenomena presented would be those of deficient secretion—a want of catabolic action for lack of material. But an original nervous disturbance might have taken the reverse direction, so that what appears in the case referred to as a secondary condition is, no doubt, in many cases primary. Thus, Remond, in the article cited, collates a considerable number of cases of disturbance in the secretory function of the stomach presenting very diverse phenomena, occurring principally in hysterical patients and in ataxics. Finally, he traces by the following path the connection between supersecretion and that

condition of atony to which Meyer has given the name *phthisis ventriculi*.

The stomach, from some morbid state of its nervous apparatus, secretes an abnormal gastric juice. The patient has pyrosis; the stomach at each meal responds with undue activity to the stimulation of food, and finally vomiting occurs to relieve the viscus from the excess of acid. The vomiting, on the one hand, increases the irritability of the nervous apparatus of the stomach, and, on the other, depresses the patient's spirits, thus adding to the original trouble. The morbid activity of the glands is increased until, finally, exhaustion occurs, and they fail to respond to any stimulus, dilatation and wasting being the final results. Remond does not agree with Rossbach, Riegel, and others, who attribute dilatation to spasm of the pylorus from irritation by too acid a secretion. The long duration of his first case, without dilatation, negatives this, to his mind. He believes that histological alterations are produced in the secretory structures—a sclerosis, in fact, which may either seal up the orifices of the glands, producing retention-cysts, if of superficial origin; or destroy their secretory cells, if of deeper location. As to the underlying cause, Rosenthal suggests a degeneration of the sympathetic ganglia, citing, in support of this theory, the results of autopsies by Köhler, Demange, Landouzy, and Dejerine. Jürgens, in a case of grave secretory trouble of the stomach, found extensive degeneration of the plexus of Meissner and of Auerbach. Blaschko and Sasaki found similar lesions in cases of gastro-intestinal glandular atrophy.

From all that is known of the subject it is evident that, in any case, the gastric clinical phenomena are of less importance than the information to be derived from a careful study of the general condition of the patient, in order to determine the nature of the underlying neurosis—whether it is structural or functional, ataxic or neurasthenic. Lavage, and other local measures, to relieve the irritation present, may succeed in diminishing morbid reaction and in preventing some of the unfortunate sequelæ, but it is the neurosis which demands treatment, if cure is to be effected.

Marine-Hospital Service.—The present status of this service as a branch of the Treasury Department's work may be changed. It is stated that a movement is on foot to make the Marine-Hospital Service a department of the medical service of the navy.

REVIEWS.

THE THROAT AND NOSE, AND THEIR DISEASES. By LENNOX BROWNE, F.R.C.S.E. Third edition, revised and enlarged. 8vo., pp. 716. Philadelphia: Lea Brothers & Co., 1890.

MR. BROWNE'S work on diseases of the nose and throat is to-day, probably, more widely used as a text- and reference-book than any other work on the same subject, and deservedly so, for it is the result of enormous experience and a critical observation of the practice of other laryngologists, and is almost absolutely free from dogmatism.

The chief change noticed in the third edition is that the chapters upon intra-nasal diseases are much fuller, one hundred pages being devoted to diseases of the nose and accessory cavities, beginning with an excellent chapter upon etiology. Mr. Browne attributes great importance to the cilia lining the respiratory tract of the nose in maintaining a healthy condition of the mucous membrane, and believes that destruction or injury of the cilia by smoke, irritating vapors, etc , is often the starting-point of a chronic catarrh.

In reviewing the causes of ozæna the author suggests that, in some cases at least, the condition is due to a congenitally imperfect development of the lining membrane of the nose, and that in such the tissues have at no time been able to perform their proper functions.

The entire subject of reflex diseases of nasal origin is very thoroughly discussed. and in a perfectly unbiassed spirit. The evidence is so logically stated that the most sceptical, after reading the pages devoted to this, cannot fail to be convinced that many diseases, and often those in which such a connection would not be expected, arise from some nasal abnormality, and can be cured in no other way than by intra-nasal treatment.

As to the etiology of chronic hypertrophic rhinitis, our author is fully in accord with the views of Dr. J. N. Mackenzie, namely, that the disease is the result of recurring attacks of acute and subacute catarrh; and he cannot agree with Bosworth, that septal spurs or deviations are factors, although admitting that their removal constitutes an important part of the treatment. In the treatment of hypertrophic rhinitis he thinks that sprays and douches are of little use, and that surgical measures must be chiefly relied upon. In cases uncomplicated by septal deformities the galvano-cautery will usually accomplish all that is desired; but in those which are not relieved by such measures, he has had encouraging results from the use of gelatin bougies formed on a rigid wire nucleus and medicated with iodol, chloride of zinc, etc. He thinks that paresis of the alæ nasi not infrequently prevents complete cure, and for the relief of this he advises the use of stimulating smelling-salts, menthol inhalations, and "gymnastic exercise of the nasal dilator muscles." In a few instances he has resorted to faradism. Unfortunately, he does not tell us why inhalations should relieve the paresis, nor how "alar gymnastics" can be performed.

Septal diseases—perforation, deviations, and hyperostosis—are thoroughly discussed, and clear directions given upon the operations indicated, and the proper methods of performing them. Mr. Browne is opposed

to Adam's operation of refracturing the septum for traumatic deviation, and believes that rectification can be secured by removing the obstruction by means of a saw or trephine. He writes enthusiastically of Curtis's nasal trephine, and considers it the most useful instrument devised for the relief of hard obstructions.

The least satisfactory portion of the work is that upon aural diseases, though even here there is much sound advice, and Mr. Browne shows that he is more familiar with otological work than are most laryngologists.

In the second edition of this book Mr. Browne was very distinctly opposed to the operation of intubation in laryngeal diphtheria. Now, however, he confesses that his former objections have been almost entirely dissipated, chiefly by observing the results of the operation in America.

In this brief sketch we have purposely confined ourselves to the points in which the third edition of the work differs from the second, and have necessarily passed by much that is valuable, but with which all laryngologists and many general practitioners are already familiar. In general appearance the treatise differs but little from the preceding editions, and, indeed, it could not well be improved in this particular. The binding is substantial, the type clear, and the illustrations—many of which are reproductions of Mr. Browne's drawings—are numerous and above criticism.

CORRESPONDENCE.

ORIENTAL MEDICINE.

To the Editor of THE MEDICAL NEWS,

SIR: Oriental medicine in the post-mediæval period has received so little attention in the study of the history of medicine, and the materials for research are so scanty, that I venture to think the recipes below may be of interest. They are written on the fly-leaves of the *Williams Codex*, the property of Mr. Robert S. Williams, of Utica, N. Y., and are the subject of an elaborate prolegomena by Dr. Isaac H. Hall, published by the Johns Hopkins University, in 1886, with *fac-similes* of the Syrian Antilegomena epistles which it contains. The translations of the prescriptions given below are, however, by Dr. Van Dyke, of Beirut, Syria. The extracts date, in all probability, from about 1471, the MSS. being dated July 4, 1471, and the prescriptions, in Arabic, being written at about the same time, and in Mesopotamia, probably near Husn Keifa. I dare say, most European physicians at the time would have deemed them useful, as they antedate Paracelsus and are contemporary with Campegius. "Steeped water of fresh glass" is, of course, a periphrasis for distilled water, and the day is still, I believe, in the future when the necessity for this precaution will be both accepted and acted upon by all our own apothecaries. TALCOTT WILLIAMS.

Recipe for the Philosopher's Electuary—they also call it "The Matter of Life." "It is useful in excess of phlegm, and strengthens the soul, and rejoices, and digests, and eructates, and appetizes, and increases the capacity to commit to memory and to remember, and acuteness of intellect, and loosens the tongue, and removes indigestions, and stops 'stillicidium urinæ,' and quiets flatulencies, and increases the seminal fluid, and strengthens the penis, and makes firm the teeth, and removes pains in the joints and back. It is made of pepper and long pepper, and myrobolans and Myrobolans Bellerica, and Amyros Zeilanica, and Aristolochia (roots), rolled, and male orchis, and twigs of chamomile, and heart of pine seeds (and) citron. To be pounded and sifted and moistened like other electuaries. The dose of it is about the size of a walnut, and God is the healer of all pains."

A trial of dentifrice composed of fennel (?). (Reading doubtful. The lines apparently not perfect.)

Electuary of assafœtida (benefits) from all stings of insects and quartan fever, and from . . . assafœtida, pepper, rue . . . to be pounded and sifted and mixed ("fiat massa"). The dose . . . . removes . . .

(Much effaced, and words where . . . appears are obliterated.)

The dose of myrrh is half a drachm.

Talikûn. [No such word known in Arabic—probably a Mesopotamian corruption of Talcûn—Talc]: This vitriol (or alum) its scar will not granulate nor heal, and if with tweezers made of this vitriol (or alum) the hair be extracted, it will not grow at all, ever; and if a small hook be made of it, there will be caught a large fish; it debilitates it and makes it drunk; and if there be made of it a probe (*i. e.*, anything used for touching the eyes with stibium), and a sore eye be touched with it, it cures it; and it has, beside these virtues, high properties. It is made (thus): to be taken, zinc (calamine) prepared with hot water and steeped in the urine of cattle a long time, then taken out and dried, and to be taken some red coral and ground fine and steeped water of fresh glass next ten days, then taken out and dried, then all pulverized together. Then melt purified copper, and when melted in the crucible, inoculate it with the (above) medicine a times until it becomes cleansed. To every ten (parts) add two of the medicine.

To catch . . . take berries of solanum nigrum . . . bruise the leaves . . . and hang it . . . Another like it: take tartar and drug, and flour of barley and blood . . . equal parts; pound the whole . . . the place in which is . . . to it from every place, and if it is made . . . linen and let down to . . . the fish they can be caught with the hand. . . . Another, from Said el Hammam: Take horse beans and cook them with sulphur . . . and seeds of hyoscyamus niger, any bird . . . to the earth and does not (sit) high . . . take it by the hand, and if you wish pour oil . . . into its mouth.

NEWS ITEMS.

The American Association of Gynecologists and Obstetricians.—The American Association of Gynecologists and Obstetricians will hold its next annual meeting in Philadelphia, on Tuesday, Wednesday, and Thursday, September 16, 17, and 18, 1890, in the hall of the College of Physicians, corner Thirteenth and Locust Streets. All physicians interested are invited to attend the several sessions.

E. E. MONTGOMERY, M.D., *President.*
W. WARREN POTTER, M.D., *Secretary.*

American Dermatological Association.—The fourteenth annual meeting of the American Dermatological Association was held at Richfield Springs, New York, September 2, 3, and 4, 1890. After a brief business meeting the President, Dr. Prince A. Morrow, delivered his address. Papers were read by Drs. R. W. Taylor, L. A. Duhring, R. B. Morrison, J. N. Hyde, J. C. White, H. W. Stelwagon, and others.

The American Orthopædic Association.—The fourth annual meeting of the American Orthopædic Association will be held at the College of Physicians, Philadelphia, September 16, 17, and 18, 1890. A large number of papers will be read, and the meeting promises to be an interesting one.

Mississippi Valley Medical Association.—The medical profession is cordially invited to attend the sixteenth annual meeting of the Mississippi Valley Medical Association, to be held at Louisville, Ky., October 8, 9, and 10, 1890. The President of the Association is Dr. Joseph Mathews, Louisville; Secretary, Dr. E. S. McKee, Cincinnati; Chairman of the Committee of Arrangements, Dr. I. N. Bloom, Louisville. Elaborate preparations will be made for the entertainment of visitors. Papers from the East are promised by Drs. Frank Woodbury and H. A. Hare, Philadelphia; Dr. John A. Wyeth, New York; Dr. William C. Wile, Danbury, Conn.; and Drs. Sutton, Daly, Wood, and Murdoch, Pittsburg. Papers are also promised by many other prominent men in the profession.

This Association is an outgrowth of the old Tri-State Medical Society, which comprised members from Indiana, Illinois, and Kentucky, and now includes all the territory in the valley of the Mississippi.

The interest of the occasion will be further increased by the annual meeting of the American Rhinological Association, which will be held in Louisville October 6 7, and 8.

The Reported Case of Cholera in London.—Regarding the case reported as one of cholera, in London, a note in *The Lancet* says that though the clinical symptoms point to Asiatic cholera, there would appear to be nothing incompatible with the diagnosis of severe so-called English cholera, or cholera nostras, cases of which are by no means uncommon in England during the summer months. Every possible precaution has, however, been taken in the interests of the public health. The vessel from which the patient came has been fumigated, and her water-tanks emptied and cleansed. The conveyances by which he travelled have been disinfected, while the house, clothing, etc., have been thoroughly fumigated and cleansed. The improbability of the case being one of Asiatic cholera rests on the facts that no other cases of a like nature have occurred on the voyage or since, although all clothing and effects in the possession of the patient had been used by him during the voyage; and, further, that he was in his ordinary health on arrival. A possible source of infection has been suggested in the wearing of a suit purchased in a Calcutta bazaar. It has, however, been proved that the suit was bought in London after his arrival. The patient is rapidly recovering.

Stramonium Poisoning.—Two children were poisoned in Philadelphia, September 5th, by eating the seeds of Datura Stramonium. One, a girl three years old, died in a few hours; the other, a boy of the same age, recovered.

Dr. Gray's Treatise on Nervous Diseases.—The many friends of Dr. Landon Carter Gray will learn with pleasure that the literary labor on his forthcoming work on *Diseases of the Nervous System* is drawing toward completion. Throughout it has been Dr. Gray's aim not simply to record that which is already known of this obscure class of troubles, but to add the increment of his personal experience and give to his work the impress of personal individuality that must add largely to its value.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM SEPTEMBER 2 TO SEPTEMBER 8, 1890.

WOODHULL, A. A., *Major and Surgeon*—Is granted leave of absence for one month, on surgeon's certificate of disability, with permission to go beyond the limits of the Department.—Par. 1, *S. O. 122, Headquarters Department of the Missouri, St. Louis, Mo.*, September 5, 1890.

WOOD, LEONARD, *First Lieutenant and Assistant Surgeon.*—Is hereby granted leave of absence for one month, to take effect on or about October 20, 1890, with permission to apply for an extension of one month.—Par. 1, *S. O. 74, Department of California, San Francisco, Cal.*, August 30, 1890.

DE WITT, THEODORE F., *First Lieutenant and Assistant Surgeon.*—Is granted leave of absence for one month, to take effect September 15, 1890.—*S. O. 76, Headquarters Department of Texas, San Antonio, Texas*, September 1, 1890.

APPOINTMENT.

BAXTER, JEDEDIAH H., *Colonel and Chief Medical Purveyor.*—To be Surgeon-General, with the rank of Brigadier-General, August 16, 1890, vice Surgeon-General Moore, retired from active service.—*Headquarters of the Army, A. G. O., Washington*, September 1, 1890.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING SEPTEMBER 6, 1890.

WISE, J. C., *Surgeon.*—Detached from Torpedo Station, and ordered to the U. S. S. "Alliance."

FITZSIMMONS, PAUL, *Surgeon.*—Ordered to the Torpedo Station, Newport, R. I.

BRIGHT, GEORGE A., *Surgeon.*—Detached from the U. S. S. "Constellation," and ordered to the Naval Academy.

OLCOTT, F. W., *Assistant Surgeon.*—Promoted to be Passed Assistant Surgeon.

WENTWORTH, A. R., *Passed Assistant Surgeon.*—Requests to withdraw resignation; granted.

CRAWFORD, M. H., *Passed Assistant Surgeon.*—Detached from the U. S. S. "Monongahela," and granted two months' leave of absence.

KEENEY, JAMES F., *Assistant Surgeon.*—Detached from the U. S. S. "Richmond," and granted two months' leave of absence.

LOWNDES, CHARLES H. T., *Assistant Surgeon.*—Detached from the Naval Academy, and ordered to the U. S. S. "Richmond."

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

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